Parke, Davis & Co.

No. 25.

THIS BROCHURE CONTAINS

Information compiled from the various sources of botanical and pharmaceutical knowledge, clinical reports, physiological researches, etc., concerning:

JAMAICA DOGWOOD (Piscidia Erythrina, *Linn.*)
CEDRON SEED (Simaba Cedron, *Planchon.*)

REPRINTED FROM THE

PHARMACOLOGY OF THE NEWER MATERIA MEDICA.

JAMAICA DOGWOOD (Piscidia Erythrina, Linne).

Part Employed.—Bark of the root.

Natural Order.—Leguminosæ.

Habitat.—West Indian Islands and adjacent mainland.

Properties.—Anodyne, hypnotic. A valuable substitute for opium, producing natural refreshing sleep, without subsequent depressing effects, suppression of the secretions, constipation, headache, etc. As an analgesic it is inferior to opium, which, indeed, stands as yet unrivalled in this regard; but as a remedy for the sleeplessness caused by nervous exhaustion, or by minor constitutional disturbances, it is of great utility. Applied locally, the fluid extract relieves toothache, and taken internally, often allays pain, rendering unnecessary the administration of more powerful narcotics.

Active Principle.—Piscidin; sedative, hypnotic, etc. Clinical experience has not yet shown how far this substance represents the activity of the crude drug or in what dose it should be given.

Preparations.—Fluid Extract Jamaica Dogwood; not miscible with water; dose, ½ to 2 fluidrachms (2 to 8 C. c.).

Powdered Extract Jamaica Dogwood; of same strength as the solid extract; prepared by evaporating, at a low temperature, the solid extract, and replacing the moisture with powdered Jamaica Dogwood; dose, 2 to 10 grains (0.13 to 0.65 Gm.).

Solid Extract Jamaica Dogwood; one part equals 7 of bark; dose, 2 to 10 grains (0.13 to 0.65 Gm.).

Pill Jamaica Dogwood Extract; 2 grains.

Liquor Sedans; a utero-ovarian sedative and anodyne, a scientific substitute for certain copyrighted preparations on the market. Each fluidounce represents: black haw, 60 grs.; golden-seal, 60 grs.; Jamaica dogwood, 30 grs.; combined with aromatics.

HISTORY.*

According to my experience in Jamaica, having been nearly forty years in practice, the *Piscidia erythrina*, Jamaica Dogwood, has not been used for medicinal purposes by practitioners in the Island. I have never met one who seems to have given any attention to the plant, or who has ever considered the therapeutical properties or uses of any portion of it. All that has been known is, that the bark of the root is employed for taking fish in some of the larger rivers, into which a certain quantity is thrown with the certainty of stupefying or narcotizing a large number. No doubt it has been known to medical men that the *Piscidia erythrina* is a powerful narcotic, from its having so acted, and by a process of reasoning have satisfied themselves that it is capable of exerting such an influence on the human subject, but it has not come to my knowledge that it has ever been employed by them.

I am not prepared to state the exact time, but, some years ago, my respected colleague, the late Dr. McGrath and myself, being then in charge of the public hospital and

* James Scott, M.R C.S., England, in the Therapeutic Gazette, 1880, p. 9. Dr. Barham, of Jamaica, first mentions Jamaica dogwood in his Hortus Americanus, published in 1794 as a restringent wash. Dr. Wm. Hamilton, Plymouth, England, mentions the plant in the Pharmaceutical Journal (see U. S. Dispensatory, 14th ed., p. 1734). Sweringen speaks of it in his Dictionary of Pharmaceutical Science; it also appears in Lindley's Vegetable Kingdom, and in Lindley and Moore's Treasury of Botany, in Griesbach's Flora of the British West Indian Islands, in De Candolle's Prodomus Systematis Naturalis Regini Vegetalis, in Loudon's Encyclopædia of Plants, and in Lunan's Hortus Jamaicensis.

On pp. 625 1888 Given.

lunatic asylum of this city, it was thought desirable, in the treatment of a certain class of patients in the latter institution, to test the power of the Jamaica Dogwood as a sedative and narcotic. This determination was come to in consequence of the failure of morphia and other preparations of opium, as well as several known sedatives, to produce the desired effect, more particularly in those cases where there was considerable excitement or restlessness. Being early in the year when we made this resolve, it was necessary, in order to gather the roots, to wait until the month of April, the period of inflorescence, the trees being then deprived of their leaves. Of the bark of these roots a tincture was prepared according to the formula recommended by Dr. W. Hamilton, of Plymouth, England, and which was found in the appendix to the "United States Dispensatory." It may be repeated here: "Macerate an ounce of the bark in coarse powder, in four fluidounces of rectified spirit for twenty-four hours and then filter. The dose is a fluidrachm."

The medicine in the dose suggested was prescribed for lunatics, who were in a state of excitement, and who, under the use of ordinary narcotics that were given in full and repeated doses, could obtain no sleep. When administered the effect was most remarkable. In some cases sleep was soon produced; on waking the patient was comparatively tranquil and quiet, whilst in others of a rather more severe character, it was necessary at short intervals to repeat the dose, until the narcotic effect of the medicine was manifest.

I write from memory, but the good results of this powerful and valuable narcotic were invariably apparent, and most certainly after its use for a few days there was marked tranquility of the patient, and an improvement in his condition. So valuable was this medicine considered, being the only narcotic which it was considered had, at the time, any decided effects upon lunatics, that for a series of years, and so long as Dr. McGrath and myself had charge of the lunatic asylum, fresh roots were gathered in the month of April, and the tincture was prepared in sufficient quantity to last fully for a period of twelve months, and it was uninterruptedly employed as the only narcotic, among the many in use and at command, which appeared to possess special sedative influence in allaying the excitement and overcoming the sleeplessness of a peculiar class of lunatic patients.

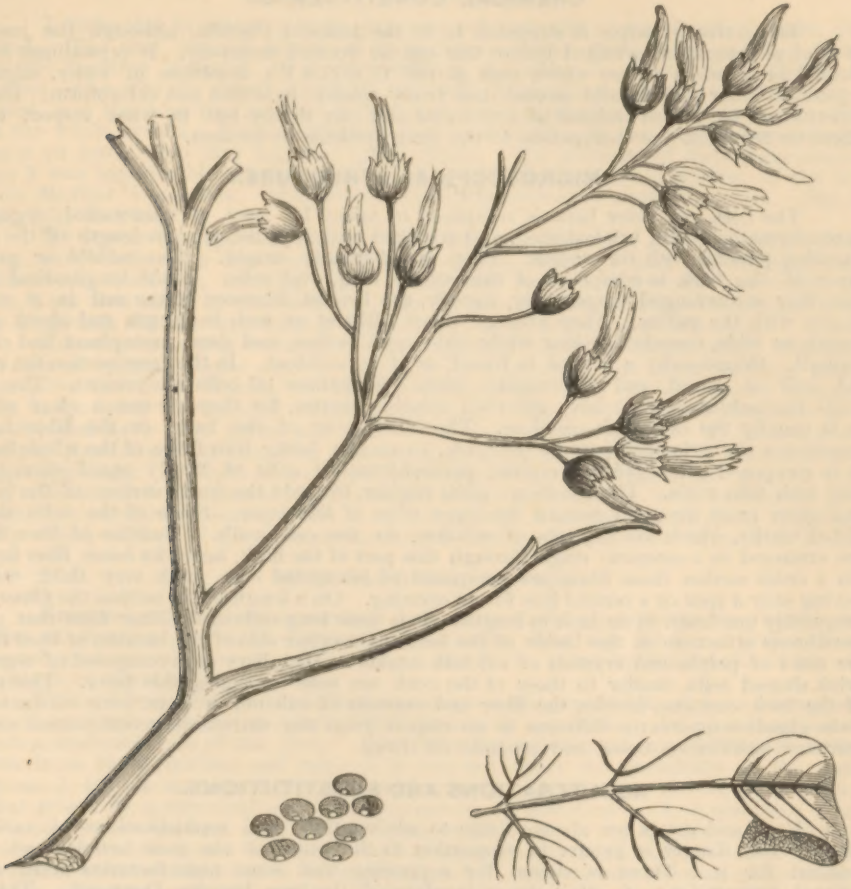
THE INTRODUCTION OF JAMAICA DOGWOOD.*

With reference to our identification with the introduction of Jamaica dogwood to the medical profession, we would state that our attention was called to the value of this drug in therapeutics by a correspondent in the year 1878. Reference was made for information upon the subject to the appendix of the U. S. Dispensatory (Wood & Bache's), 13th edition, page 1734. Acting upon the information afforded us we took the ground that this drug was of sufficient interest, as a powerful therapeutic agent, to warrant our placing the same before the medical profession for the purposes of investigation. We, therefore, opened correspondence with the United States consul and with business men of Kingston but without favorable results. We were, therefore, finally compelled, in 1879, to dispatch one of our own representatives to the Island of Jamaica, who remained upon the island for a period of several months and succeeded in obtaining for us a supply of the bark of the root of the *Piscidia erythrina*. In entrusting this mission to a personal representative, as customary with us, we selected one well fitted by his familiarity with the science of botany, medicine, and pharmacy to enable him, not only properly to locate the tree botanically, but also to afford us such reliable information as could be obtained with regard to the therapeutics of the drug from the various sources afforded upon the Island.

In placing the drug before the medical profession we were guided by our usual policy. In the first place a fluid extract was manufactured after a formula resulting from the investigations of our chemical department. Specimen bottles of this fluid extract were distributed gratuitously not only to the public hospitals and dispensaries of the large commercial centres, but also to individual practitioners throughout the United States who were interested in the subject. We then asked from our medical friends in the hospitals and private practice reports as to their experience, favorable or unfavorable, in the use of the drug, promising to place this information properly compiled, in printed form, before the medical profession. In order that we might hasten the result of these investigations for the benefit of all concerned, we enlisted the assistance of the distinguished physiologist, Dr. Ott, of Easton, Pennsylvania, who investigated this drug physio-

*Statement of Parke, Davis & Company in the first Working Bulletin issued upon Jamaica Dogwood by them in 1882.

logically, publishing the results of his investigation as cited elsewhere in this circular. At our request and at our expense Mrs. Louisa Reed Stowell, of the University of Michigan, investigated the drug microscopically, and the result of her work was duly published in medical literature.



BOTANICAL DESCRIPTION.*

Jamaica Dogwood—Piscidia Erythrina, *Linné.*—A tree, usually about 20 feet in height; leaflets three or four paired, with an odd one, petiolulated, oblong, or obovate-elliptic, rounded at base, entire, pubescent on both sides when young, but subglabrous when old; paler, with minute white dots beneath. Racemes compound, axillary (terminal, Swartz), peduncle trigonal, puberulous; divisions about an inch in length; flowers whitish, with a purple tinge, shortly pedicelled, with a pair of oblong scariose deciduous bracts about the middle of each pedicle. Calyx colored, very minutely puberulous, the two upper teeth coadnate, the three lower bluntish; standard rounded, emarginate, with a greenish tinge in the centre; wings and keel colored at apex; stamens nine to one. Ovary linear compressed; stigma obtuse; stipe of the legume twice or thrice larger than the

* James Macfadyen, M. D., in Botany of Jamaica; Wm. Hamilton, M. B. H. M. L. S., in Pharmaceutical Journal and Transactions; Louisa Reed Stowell, M. S., in the Therapeutic Gazette Supplement, March 1883, p. 9.

calyx; wings four, longitudinal, membranaceous, with the margin undulated and irregularly lacerated. The leaves are shed early in the year, and previous to the development of the new foliage, the flowers made their appearance.

CHEMICAL CONSTITUENTS.†

The active principle is supposed to be the resinoid Piscidin, although the results of clinical reports are awaited before this can be decided definitely. It crystallizes from alcohol in colorless prisms which melt at 192° C. (377.6 F.), insoluble in water, slightly soluble in ether and in cold alcohol, but freely soluble in benzol and chloroform. Other constituents have been isolated of a resinous and oily nature but in what respect they affect or represent the therapeusis of the drug remains to be seen.

MICROSCOPICAL STRUCTURE.‡

The cork or outer bark is composed of about 15 rows of thin-walled, regular, parenchymatous cells, brick-shaped, and arranged radically; namely, the length of the cell standing parallel with the radius. They are generally empty. The middle or green layer of the bark is composed of thin-walled, long, oval cells. In the longitudinal section they are arranged tangentially, namely, the longest diameter of the cell is at right angles with the radius. They average about 1-250 of an inch in length and about one-fourth as wide, containing clear white chloropyll bodies, and dead protoplasm and chlorophyll. Occasionally a crystal is found, as if by accident. In the cross section the cells are oval or round, and of irregular sizes. Sometimes oil cells are present. The cell walls themselves seem to have absorbed coloring matter, for they are not a clear white as is usually the case with cellulose. The inner layer of the bark, or the liber layer constitutes the principal part of the bark, frequently being four-fifths of the whole bark. It is composed principally of regular parenchymatous cells of nearly equal diameters, and with thin walls. These cells are quite regular towards the inner surface of the bark, and grow more irregular toward the outer edge of this layer. Some of the cells show pitted marks, which are deposits of cellulose on the cell walls. Bundles of liber fibre are arranged in concentric rings through this part of the bark, hence its name, liber layer. On a cross section these fibres are composed of hexagonal cells, with very thick walls, having only a spot or a central line for an opening. On a longitudinal section the fibres are frequently one-tenth of an inch in length. It is these long cells of the liber fibre that give the fibrous structure to the inside of the bark. On either side of the bundles of liber fibre are rows of polyhedral crystals of calcium oxalate. Medullary rays composed of regular brick-shaped cells, similar to those of the cork, are seen traversing this layer. This part of the bark contains, besides the liber and crystals of calcium or slate, some oil ducts or resin glands—apparently different in no respect from the surrounding cells—some small scattered laticiferous tissue and separate oil drops.

ADULTERATIONS AND SUBSTITUTIONS.

Food and drugs are always liable to adulterations and sophistications of various kinds. This danger is greater in proportion to the value of the pure article, and the demand for it. There is reason for supposing that some manufacturers have substituted preparations of other drugs in place of the true Jamaica Dogwood. This is comparatively easy to accomplish, owing to the "opium smell" of the true drug. The substitution of the opium preparations for those of Jamaica Dogwood cannot be too strongly condemned. The simple test for meconic acid should always be resorted to in suspected cases of this kind. The substitution of other closely allied drugs of narcotic properties is also reprehensible, for only by testing the genuine drug can the true virtues of *Piscidia erythrina* ever be scientifically determined. Quantities of Jamaica Dogwood of poor quality and inert, have several times been refused. These lots seem to be taken from dead roots, or those that have been long in the water; in each case they were found to be water-soaked, and devoid of medicinal activity. As these lots of bark are still seeking a market, it is important that care should be taken by the trade in

† In the Therapeutic Gazette, 1883, pp. 97, 98, is described in detail the methods and results of the efforts of Edward Hart, Ph. D., of Easton, Pa., to determine the active principle, upon which reports, as well as also upon extended researches made in our laboratory, this statement of the chemical constituents of Jamaica Dogwood is based.

‡ Louisa Reed Stowell, M. S., Assistant in Microscopical Botany in the University of Michigan, in the Therapeut'c Gazette, 1883, March, Supplement, pp. 9 and 10.

supplying all orders for it. The bark of the tree may also be substituted for the bark of the root.

TOXICOLOGY.*

I write this to record a little experience I had with a sample of Jamaica Dogwood. The case was of neuralgia (hemicrania)—severe pains with nausea. Thinking the medicine indicated, as it certainly was according to directions, I directed my mother—who was the one troubled—to take half a teaspoonful in water. This was rejected, and the dose was repeated. In about twenty minutes she had the toxic effects on the whole system. Spasms supervened and continued with but slight intermission for about an hour, when they began to grow lighter. The paralysis of diaphragm continuing; I was considerably alarmed, and called in Dr. S. B. Chase, President of the Iowa State Medical Association. Difficulty of breathing continued about six hours. She has now fully recovered.

My reason for reporting the case is to ascertain if this is the usual action of the drug, and whether the dose recommended is not too large. I gave the minimum dose without any hesitancy, thinking that certainly that would not give any bad result. As it is, I am now afraid of the medicine. My mother had taken no other medicine except the Dogwood, and the untoward symptoms are clearly traceable to this drug.

[Idiosyncrasy exists in many families regarding the action of narcotics. The smallest dose of opium in some cases is followed by unpleasant and often alarming results. The above case is of interest in this connection more from the idiosyncrasy displayed than in the study of the toxic effects of the drug. Much larger doses than that given on the label have been given and *with no apparent effect whatever*. As an antidote in cases of poisoning from this drug, the treatment suggested by Wood in narcotic poisoning is applicable. "There is now sufficient evidence to show that apomorphia is a safe and reliable emetic, possessed of advantages which have already been sufficiently dwelt upon. In *narcotic poisoning* there is no reason why it should not be given hypodermically whilst sulphate of zinc or some mechanical emetic is exhibited by the mouth."†—ED.]

PHYSIOLOGICAL ACTION.

Extended experimental researches have been made to ascertain the physiological action of Jamaica Dogwood, the conclusions, rather than the details, of which are of general professional interest. Isaac Ott, A.M., M.D., sums up the results of his very thorough experiments‡ as follows:

It is evident from the preceding experiments that in piscidia we have a drug capable of producing death by arrest of the respiratory apparatus. Frogs seldom recover from a moderate dose of the drug. The following conclusions may be drawn: 1, it is narcotic to frogs, rabbits, and men; 2, it does not affect the irritability of the motor nerves; 3, it does not attack the peripheral ends of the sensory nerves; 4, it reduces reflex action by a stimulant action on the centers of Setschenow; 5, it produces a tetanoid state by a stimulant action on the spinal cord, and not by a paralysis of Setschenow's centers; 6, it dilates the pupil, which dilation passes into a state of contraction upon the supervention of asphyxia; 7, it is a salivator; 8, it increases the secretion of the skin; 9, it reduces the frequency of the pulse; 10, it increases arterial tension by stimulation of the monarchical vaso-motor center; 11, this increase is soon succeeded by a fall, due to a weakening of the heart itself.

If the action of piscidia is compared with that of chloral, it is found that the former has no dangerous action on the heart like the latter, nor such an energetic action like the latter upon the respiratory organ. Compared with atropia, piscidia, unlike the former, does not paralyze the motor nerves; it does not paralyze the chorda tympani; it does not arrest the sudoral secretion; it does not paralyze the pneumogastrics, and does not elevate greatly the arterial tension, but like it dilates the pupil. Compared with morphia, like it, it produces sleep, heightened excitability, spinal convulsions, general paralysis and stimulation of the vaso-motor centre; unlike it, it dilates the pupil. In the use of this drug I would like to add the caution that its surface is pleasure and its depth death.

Mr. A. C. Nagle,§ of Philadelphia, Pa., reaches, practically, the same conclusions,

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* F. M. Moore, M.D., in the Therapeutic Gazette, 1881, p. 54.
† Wood's Materia Medica, Therapeutics and Toxicology, p. 417.
‡ Therapeutic Gazette, 1883, supplement to March number, pages 12 to 17 inclusive.
§ Druggists' Circular, February, 1881, p. 18.

while George W. Winterburn, Ph. D., M. D.,* details extensive experiments which he closes in the following language:

"From these evidences, it is shown that piscidia is a very powerful drug, occupying but a very limited field, within which it promises to be of positive value. Piscidia differs from strychnia in possessing more influence on the cerebrum and less on the spinal cord. In strychnia-poisoning the patient retains clearness of intellect to the last, while in that from piscidia he passes early into the stage of obliviousness. Strychnia causes death by the firm clutch it obtains on the pectoralis muscles, suspending respiration. Piscidia, on the other hand, produces death by the violent nervous excitation which it causes. After death by strychnia the heart is contracted and empty. Death caused by piscidia leaves the heart dilated, flaccid and empty. The action of opium and piscidia are similar, but not identical. The former is much more apt to produce headache, nausea, and other disagreeable symptoms than the latter. In opium-poisoning the eyes are contracted and excited, under piscidia they become dilated and staring. Belladonna affects the system somewhat analogously to piscidia, but the former is much more violent, causing furious delirium, somnambulism, and acute mania as well as tetanus, like strychnia and brucia. Belladonna antidotes acute poisoning by opium and its preparations. Piscidia, on the other hand, counteracts the evil effects of long-continued use of opium, as in the opium habit. Belladonna causes dryness of the skin piscidia profuse diaphoresis, both acting through the nervous centers.

THERAPEUTIC PROPERTIES OF JAMAICA DOGWOOD.

Clinical Reports of a General Character.

Report 1.†—I have used fluid extract Jamaica Dogwood in a few cases, and like it very much. In one case of very severe neuralgia, in which the fifth was affected, two drachms effected a cure. Have used it with fine success in sick headache. In a case of pure insomnia, it brought about most satisfactory results. Am glad Jamaica Dogwood is added to our list of remedies, and believe it to be a long felt need.

Report 2.‡—Having had a sample vial of Jamaica Dogwood left me it was some time before a case presented with an especial indication for a trial of the drug. The first case was one of acute articular rheumatism in which, owing to an idiosyncrasy of the patient, it was impossible to administer morphia for the relief of the pain even though that alkaloid was combined with atropia. The Jamaica Dogwood given answered the purpose so admirably as to prepossess me very strongly in its favor as an anodyne. In another case of capillary bronchitis I was also so much gratified with its action that I now keep a supply of the drug regularly on hand.

Report 3.§—I regard Jamaica Dogwood as a decided success. The tests to which I have subjected it were such as to thoroughly try it. I have employed it in several cases of inveterate and long standing bronchial irritation, and in cases of thoracic pain due to nervous debility and excessive lactation. Any physician who has had cases of this nature to treat, (and few practitioners miss them) will have cause for gratitude after placing them on Jamaica Dogwood. Opium from its after-effects, and owing to frequent idiosyncrasies on the part of the patient, as well as from the liability of contracting the opium habit to which its employment lays the patient open, is an article which all conscientious practitioners dislike to administer in these cases. But until Jamaica Dogwood was introduced, opium, in spite of its drawbacks, had frequently to be given. I have also employed the drug in several cases of most severe hemicrania, tic douloureux, painful muscular spasms and rheumatism, in all of which I have been very much pleased with its action.

Report 4.‖—As an anodyne, and particularly as a hypnotic, this drug certainly has qualities which entitle it to rank next to opium, while it possesses the very great advantage over "the juice of the poppy" of not causing any of those disturbances which are so great an objection to the use of the latter—the cephalalgia, nausea, restlessness, disorders of the digestion, etc. *Piscidia erythrina* is no longer an experiment; its properties are well defined, and it deserves to take rank with the standard remedies.

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* Hahnemann Monthly, May, 1884, p. 274.
† W. M. Lewis, M. D., of Kentucky, in Therapeutic Gazette, 1880, p. 297.
‡ S. M. Whistler, M. D., of Kansas, in Therapeutic Gazette, 1881, p. 260.
§ J. A. Larrabee, M. D., of Louisville, Ky., in Therapeutic Gazette, 1881, p. 260.
‖ Robert R. Lawrence, M. D., of Michigan, in Therapeutic Gazette, 1881, p. 50

Report 5.*—I have tried fluid extract Jamaica Dogwood; am now fully satisfied in regard to its anodyne effects; my experience has been somewhat varied; it will quiet when there is not much pain, but will not take the place of morphine in my opinion; I think, however, it is a valuable remedy. I found it put a quietus upon a chronic cough in two cases, which annoyed the patients so much as to keep them awake most of the night. Shall continue the remedy and report to you in the future.

Report 6.†—I find that this drug is very much like opium in its effects on the nervous system, except that it does not constipate the bowels or act as a stimulant. It quiets almost immediately, does not leave any sick stomach afterward, and does not interfere with the action of calomel. In obstetric cases it acts in the same way—does not interfere with the progress of the labor, but rather helps it by dulling sensibility, like chloroform somewhat. It is almost a cure for sciatica. I tried it in my own family first, and it acted so well that I have used it frequently since in several families, and with uniform success. In a case of piles, very severe, I used it in conjunction with sugar of lead, topically, and was surprised at the prompt relief from pain. It is a fine thing in that complaint, as it can be used internally or topically, without interfering with other remedies.

Report 7.‡—Judging from the effects of Jamaica Dogwood (*Piscidia erythrina*), considerable reliance may be placed in it as a narcotic of very prompt action. It seems to act especially on the nervous system, its effects being often noticeable within five minutes. Its action is not so lasting as that of opium, and hence the doses should be repeated at shorter intervals. No obvious change in the excretions has been detected, nor deleterious secondary results, as with opium. Hence it can be used in congestion of the brain, and other nervous diseases, also in cases in which modification of the excretions is not advisable. The pulse seems but little affected; but in a few cases decreased action of the heart was observed, possibly due to the quiet obtained rather than from any cardiac sedative action of the drug used. It is quite probable paralysis might result from excessive doses.

Piscidia erythrina has been used in the form of tincture, and of the fluid extract. Like other remedies of this class, the dose varies very much, depending upon the condition of the patient. I have given from twenty to sixty minims of the fluid extract every three hours, and so far have observed no ill-effects from the teaspoonful doses. It is better, however, to give smaller doses and repeat as circumstances require, until the action of the medicine is better understood.

It may not be uninteresting to report a few other cases in which this medicine has been used. My first case, as stated above, was of cancer of the womb, a disease sufficiently severe to test the qualifications of any drug of this class. Though it failed to give complete relief in doses deemed judicious, the results compared favorably with those of any other anodyne used, with less of secondary effects. I have in a number of cases caused patients to rub their gums with this medicine a few minutes before extracting a tooth. They all state that the pain is much less than without anything. I cannot tell how much of this is due to imagination, for it is well known that imagination may do much for a nervous person. Whatever may be the future status of this new claimant for professional favor, the results obtained seem to warrant a recommendation for future careful observation. In it may be found therapeutic virtues not yet recorded.

Rport 8.§—I have found this drug to be an excellent substitute for opium, especially in those who, from some idiosyncrasy, do not bear the latter drug. I have been particularly struck with the quietness of patients when under the influence of Jamaica Dogwood; their breathing is, as a rule, as soft and quiet as an infant's. I regard it as a valuable remedy in mania, in neuralgia of the branches of the fifth pair of nerves. In many cases of delirium tremens it also meets every indication of cure.

Report 9.‖—I have used this remedy in several cases where opium was indicated; it has proven salutary in promoting rest, and tranquilizing the nervous system, and I have reasons to be well pleased with the effects of the medicine. I at first used it in half-teaspoonful doses, and increased to three-fourths, up to one teaspoonful, which, in my limited experience, is about the right dose to an adult. I have no doubt that this remedy will in a measure, take the place of opium, if not in time supersede it in most cases. If so, it would prove a great blessing to the people of the United States, many of whom have contracted the opium habit.

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* D. R. Greenlee, M. D., in New Preparations, November, 1879, p. 282.
† Rev. H. Brodnax, M. D., Plantersville, La., in Therapeutic Gazette, 1881, p. 137.
‡ W. H. Rouse, M. D., Detroit, Mich., in the Therapeutic Gazette. 1880, p. 291.
§ Alban S. Payne, M. D., of Virginia, in the Therapeutic Gazette. 1883. p. 59.
‖ F. Foster, M. D., of New York, in the Therapeutic Gazette, 1883, p. 285.

Report 10.*—It has been asserted that Jamaica Dogwood has not the power to relieve pain, but any person who has ever treated panophthalmitis, irido cystitis and iritis will know that patients suffer the most excruciating pain, and just in this class of cases I have tried it, putting it to the most severe test possible, with the happiest results. I could multiply our cases were it necessary; but to convince the skeptic, or as he likes to style himself, the more reserved and cautious, I will give the history of another class of cases: I have administered it in five cases of acute abscess of the auditory canal in doses that were increased to one teaspoonful when necessary, repeated every two or three hours, with results that are far better than the average results obtained from opium, when only the anodyne effect is considered, and it never left the nervous system in such a deranged condition as we find it after the latter drug. Some patients are more susceptible to the action of a remedy than others; we often meet cases where morphine cannot be given at all; so we we may meet with an instance in which Dogwood will not be tolerated; but these cases are certainly rare. I have administered it in a large number of cases during the past four years. I have used the fluid extract made by Parke, Davis & Co., and have yet to record a case where it did not act pleasantly. In many cases I proceeded very cautiously until I saw how it would be tolerated. Space will not permit me to speak of the other cases in which it was employed; but this much I can say positively, that in the experiments at Prof. Seeley's Eye and Ear Clinic Jamaica Dogwood has given better satisfaction than any other narcotic. The sulphate of codeia was the favorite drug before the introduction of Dogwood. It is a remedy that every oculist and aurist should accustom himself to prescribe, since nothing is more unpleasant in this class of patients than to derange their system completely by the use of some intolerable drug; it has such a depressing effect on their mind, and the great desideratum is to keep them cheerful.

Report 11.†—Until quite recently, piscidia has been considered as a hypnotic. Experience leads the author to the opinion that it principally acts as an anodyne, and that sleep is not its specific immediate effect, but only rendered possible in consequence of the cessation of pain.

Hamilton's first trial in 1844 perfectly confirms this view. He suffered from violent toothache, which nothing would allay. After applying the tincture of *piscidia* on cotton-wool to the tooth, marked relief took place. This induced him to take internally a few drops of the tincture, after which the pain perfectly ceased and profound sleep ensued.

The preparations of piscidia prove beneficial principally in neuralgia, and the author rapidly cured several cases of obstinate brachial or facial neuralgia. He prescribes exclusively the Jamaica *piscidia*, which, of all other kinds, is the most active; and uses the tincture, of which he gives 30 to 40 minims a day. Of the American fluid extracts, and those prepared by Limousin, in France, 3 to 4 grammes (46 to 60 grains) a day may be taken either pure or in a mixture.

Report 12.‡—For some time, and notably since the studies of Dr. Landowsky, *Piscidia erythrina* has acquired a certain reputation in the therapy of pain phenomena, and in your excellent conference about new analgesic remedies you speak of this remedy at length. In analyzing the studies made of this substance, I have arrived at the conclusion that they refer to the same plant which is called molungo in Brazil, and which for a long time has been employed here in medical practice in cases where we have recourse to sedative agents.

It is in the form of the extract that this substance is generally employed, and the clinical observations of numerous practitioners of Rio Janeiro and Rezende, among whom I take the liberty to cite myself, seem to establish the fact that the extract of molungo administered in therapeutic doses has the property of inducing a peaceable, refreshing sleep, resembling the physiological sleep more than that caused by opium, and one which could be a veritable pathological sleep, according to the expression of my eminent friend, Mr. Huchard. In many cases where I had to treat patients tormented with violent pains, such as those connected with the neuralgias, inflammatory tumors, whitlow, etc., I have derived great advantage from the employment of the extract of molungo, which I have prescribed in preference to opiates, which are less easily borne.

I have also utilized this remedy in the fatiguing coughs, and the chin cough (whooping cough) of tuberculous patients, and in spasmodic bronchitis. But the results, though

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* C. W. Tangeman, M. D., Cincinnati, O., in the Therapeutic Gazette, 1883, p. 359.
† Adalb. Junker, M. D., in the London Medical Record, May 17, 1886.
‡ Dr. Clementi Ferreira, of Rezende, Brazil, in a letter to Dujardin-Beaumetz, in Bull. Gen. de Therap., Dec. 30, 1886.

appreciable, have not been so striking." It has done good service in cases of insomnia of neuropathic origin, and of neurotic patients, as well as in the delirium of certain infectious pyrexias which manifest themselves in subjects given to the excessive use of alcohol.

Therefore, the practice of the clinics in Brazil confirms on all sides the conclusions of the European savants, with reference to the analgesic and sedative action of *Piscidia erythrina* or mulungo, and this should lead physicians to have more frequent recourse to this remedy, in view of the favorable results which we can secure in all cases where we may have occasion to soothe pain and bring about a refreshing, quiet sleep, without any after-effects.

Report 13.*—I have found the *Piscidia erythrina* (Jamaica Dogwood) a valuable remedy in nervous persons who cannot bear opiates, and in cases where you desire to promote and increase the secretions rather than check them. The Jamaica Dogwood seems to ease pain, promote refreshing sleep, and, if repeated, will gently move the bowels and increase the flow of urine. These properties render it an exceedingly valuable preparation in persons of peculiar nervous cachexia.

Report 14.†—Dr Leopold Pack recommends fluid extract Jamaica Dogwood in doses of three to six grammes per day in drops, or in form of mixture with 200 parts water and some syrup, as effective against the prolonged attacks of cough of phthisical patients.

Report 15.‡—The first authors who investigated this remedy regarded it as a powerful hypnotic. Legoy, neither in his experiments nor his clinical observations, could find the slightest reason for this assertion. *Piscidia erythrina* causes sleep by subduing pain. It has been compared to bromide of potassium, the similarity, however, is more apparent than real. While bromide of potassium is not able to subdue sleeplessness caused by pain, and is only effective under such circumstances when the insomnia is the consequence of nervous excitement, or due to over-exertion, *piscidia* will be effective where bromide of potash refuses to act, and *vice versa*. Piscidia is, therefore, not a real hypnotic which can be compared with chloral and bromide of potassium. It is a simple sedative.

This sedative action of piscidia indicates its use in all cases in which agrypnia forms one of the principal symptoms, and especially when the same is caused by pain. Seifert and Dujardin Beaumetz use piscidia also in affections of the respiratory organs, in bronchitis, and tuberculosis, especially when the patients, on account of coughing, are prevented from sleeping. The results are, however, not above criticism. The improvement in sleeplessness goes, nearly always, hand in hand with an improvement in the condition of the lungs.

Dr Firth used the remedy with the greatest success in several cases of delirium tremens. Legoy has had no opportunity for this application; he saw, however, several patients with chronic alcoholism, who behaved well under the application of the remedy.

Drs J. Scott and M. Grotz have used the remedy in psychiatric practice successfully. Legoy believes that it might have a good effect with paralytics with maniacal excitement. In certain cases of neuropathy, especially in neuropathy with gastric disturbances, he observed, frequently, that the pain was decreased under the influence of the remedy. The nights became more quiet, with a remarkable improvement in the general state of health. Huchard and Landowski obtained good results in the great painfulness of dysmenorrhœa. In the lancinating pains of tabes dorsalis the remedy was useless. In neuralgia, piscidia has been used by several authors with good effect. Landowski observed a neuralgia of the teeth disappear after treating it several days with *piscidia*, and Ford cured, in a short time, two cases of severe facial neuralgia, he reports that the pains began to subdue in half an hour after giving the remedy.

Huchard, who has made many experiments with the remedy, and who uses it generally in combination with *chloretum praticicum*, saw severe lumbo-abdominal neuralgias disappear after treatment during a few days. In a case of ischia the success was very remarkable.

Legoy obtained, also, excellent results in one case each of lumbo-abdominal neuralgia, facial neuralgia, and cervico-brachial neuralgia. In the last case the pain decreased considerably after six days' treatment—in such a manner, indeed, that the patient only felt a tingling in the fingers, and could, in a short time, use his arms the same as before the affection.

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*Alban S. Payne, late Professor of Theory and Practice of Medicine in the Medical College Atlanta, Georgia; Hon. Fellow Virginia Medical Society, etc., in the Therapeutic Gazette, 1885, p. 571.

†Med. Chirurg. Centralblatt (Medical Age, 1888, p. 96).

‡Bull. Gen. de Therap., 2 livr., 1885. Centralblatt f. d. gesammte Therapie, April 1885.

In a case of intestinal neuralgia the success was not as complete, though the improvement was remarkable.

Administration and Dose.—As chemists have not yet separated an alkaloid, *piscidia* cannot be used hypodermically. All authors, including Dujardin-Beaumetz, have used the remedy, so far, per os. There are three different preparations of the remedy, namely, the powder, the fluid extract, and the alcohol tincture. In powdered form it could be prescribed as follows:

Corticis piscidiæ erythrinæ pulveris..... 4.0
In doses octo, 5 times daily.

Legoy has used the powdered drug frequently, but was not very much pleased therewith. He much prefers the fluid extract, which has the advantage of presenting exactly the drug minims for grains. He generally prescribed 3 or 4 grammes, but has seen Dujardin-Beaumetz exceed this amount, gradually, without causing any disturbances. It was not observed, however, that by the increase of the quantity the effect became either stronger or quicker.

The fluid extract can be given pure, or in combination as follows:

1. Extract. piscid. erythrin. fluid. 10.0
   Syrup. cort. aurant. 20.0
   M. S.: Daily 1 to 3 coffeespoonfuls. (Each coffeespoonful contains 1.50 of the extract.)

2. Extract. fluid. piscid. erythrin. 20.0
   Aquæ destill. 50.0
   Syrup. simpl. 50.0
   M. S.: Daily 1 to 2 teaspoonfuls.

Piscidia can also be given in the form of an alcoholic tincture, 40 to 50 drops daily, diluted in solution. With the tincture the best results were obtained. According to Huchard it might be prescribed;

Tinct. alcohol. piscid. erythrin., } ..... ää partes equales.
Tinct. viburn. prunifol., }

According to the symptoms that have to be overcome, the different preparations should be given in large or fractional doses.

The success attending the exhibition of the drug is not, however, as constant as might be expected. The great drawback lies in the difficulty of obtaining the genuine *piscidia*. There are several varieties; the most effective one is the *Piscidia Erythrina* of Jamaica, or the Jamaica Dogwood of the English. Besides, the active principle is not equally distributed in the plant. The bark of the root is more effective than that of the tree. Therefore, the extract or the tincture of cort. rad. piscid. erythrina should always be used.

Report 16.*—Privatdocent Dr. Seifert has instituted at the Gerhardt Clinic, in Wuerzburg, a series of noteworthy experiments with this drug, which was placed at the command of the clinic, by the firm of Parke, Davis & Co., Detroit, Mich. U. S. A., and a solid extract was produced in the following manner, by the apothecary department of the Julius Hosp.: 100.0 cort. radic. piscidiæ diger. c. 1000.0 spir. dies octo, exprim. et filtr. et ad consist. extr. sicc. reduc. The extract thus obtained is a dry, powdery mass of a slightly bitter, but not unpleasant, taste.

On the results obtained with the preparation, the author now reports the following in the Berlin. Klin. Wochen.: The extract was first tested on several vigorous and comparatively healthy individuals, in doses of 0.25 to 0.5 Gm., there resulting sound sleep, slight giddiness the next morning, as after the use of morphine, a slight enlargement of the pupil, but no action on pulse and temperature, likewise no other unpleasant phenomena, such as flow of saliva or increased secretion of perspiration. As, according to the statement of Ott, this remedy renders good service in violent coughing, its application seemed particularly indicated in phthisis pulmonalis. It was first of all given to phthisical patients who had taken morphine for a considerable time, and had finally experienced no amelioration of of their nocturnal cough after its use. Unpleasant collateral symptoms, such as nausea and giddiness, were not observed; temperature and pulse were also unaffected; enlargement of the pupil could not be noted. The extract of piscidiæ were further employed in eight cases of phthisis pulmonalis, of which several were at the same time suffering from tuberculous ulcers of the larynx, and all of whom had as yet taken no opiates. In all these cases, 0.35 to 0.5 extract piscidiæ was given for a considerable time, almost every evening, with good success; the tormenting cough was mitigated, and the patients enjoyed pleasant sleep with-

* Wiener Mediz. Blaetter, No. 29, 1883.

out disagreeable collateral effects. Increase of the saliva or perspiration was not observed. To one of these patients, who for weeks before his entrance into the hospital, had suffered from night sweats, 0.01 of atropine was administered besides the piscidiæ extract, with the effect of obviating the night sweats and of permitting the patient to sleep. When the use of the atropine was temporarily discontinued, the night sweats again ensued with the same severity, a resumption of the combination of both remedies was then always attended with desired success. Only in one case, in which the extract piscidiæ was taken for weeks, was there a striking enlargement of the pupil.

Furthermore, the use of this remedy was successful with a patient suffering from severe gastrectasis, who had been troubled with sleeplessness for a long time, and who always secured a good night's rest after taking 0.5 of extract piscidia; here, also, there were no unpleasant collateral effects or expansion of the pupil. With a patient suffering from chronic nephritis, who for a long time had taken every evening a subcutaneous injection of morphine on account of headache and sleeplessness, the same favorable action was obtained, the patient was very reluctant to forego the injections; was afterwards, however, well satisfied with the new remedy.

The author reports several additional observations with insufficient or quite negative results, but concludes, as the result of his experiments, that the extract of piscidiæ renders good service in most cases if given in doses of from 0.25 to 0.5, particularly with phthisical patients suffering from severe cough, without developing unpleasant after-effects, and that in view of the recognized necessity with phthisical patients, of alternating remedies for mitigating the cough, the medicament deserves adoption into the materia medica.

Jamaica Dogwood as an Anodyne.

Report 17.*—My old teacher, Prof. H. S. Potter, used to tell his students to test new remedies upon themselves first, so I tested Jamaica Dogwood upon myself, thoroughly, and was greatly pleased with its effects. It has no narcotic property whatever, that I can discover, but is a pure anodyne, or nerve sedative, and I use it in all cases where an anodyne is needed, particularly combined frequently with gelsemium in the distracting pains of neuralgia. I have also found it useful in dysmenorrhœa.

Report 18.†—I have used the solid extract made into pills with powdered licorice, as an anodyne in neuralgic pains, in cases of uterine displacement, unsettled pains, etc., with much benefit to my patients thus far.

Report 19.‡—I have found Jamaica Dogwood a most valuable anodyne, relieving pain without the unpleasant after results that we find with morphine or opium.

Report 20.§—Some time since I secured a sample of fluid extract Jamaica Dogwood, and having a patient who could not take opium in any size dose or form, I had an excellent opportunity of testing its virtues. To say that I was pleased with its action, hardly expresses it. Taken in from a half to one drachm doses, it has never failed to remove pain, and that, too, without any unpleasant after-effect, not even making the patient the least drowsy. As a substitute for opium it surpasses anything I know of.

Report 21.‖—Jamaica Dogwood has proved a failure in my hands. I applied some on lint to a carious tooth from which I was suffering, but the slight relief it gave was far inferior to that afforded by the topical application of whisky. I then took half a drachm of the dogwood, and repeated the dose in half an hour, without any effect.

I gave half a drachm to a woman in good health, not telling the subject of the experiment what it was intended to do, and no result whatever followed from it.

To a small, weak woman, suffering from insomnia connected with palpitation, caused by long standing aortic obstructive disease, and who cannot bear opium in any form, I gave dogwood in 15 minim doses every four hours for four days, but she got no more sleep than when she was taking no drugs. Fifteen grains of bromide of potassium at the same intervals afforded a fair night's rest.

Report 22.¶—Jamaica Dogwood is a very valuable remedy to be used whenever an agent is indicated that will relieve pain and produce quiet refreshing sleep. I have used it in cases of sleeplessness in old and insane patients with gratifying results. It is a valuable

* J. L. Furber, M. D., of Kansas, in the Therapeutic Gazette, 1881, p. 133.
† T. C. Brannon, M. D., of Texas, in the Therapeutic Gazette, 1880, p. 261.
‡ F. T. Montague, M. D., of Indiana, in the Therapeutic Gazette, 1880, p. 321.
§ F. H. Little, M.D., in the Therapeutic Gazette, 1880, p. 293.
‖ J. Horley, M.D., Withnell, Alfred, Lancashire, Eng., in the Therapeutic Gazette, 1884, p. 192.
¶ A. Humphrey Stevens, M.D., Physician to St. Mark's Hospital, Grand Rapids, Mich., in the Therapeutic Gazette, 1882, p. 14.

remedy to produce hypnotism, for which I regard it superior to many of the narcotics which are given for such effect. It does not constipate the bowels nor interfere with digestion. I have used it to relieve pain in persons who had acquired the habit of taking large and frequent doses of opium, and found it to act admirably as a substitute for this drug. Owing to its non-constipating effect, and its seemingly sharpening influence upon digestion, it is vested with a merit which I sincerely appreciate.

Report 23.*—Mr. W. D., farmer, æt. 32, has been an invalid for years. Suffered much from pain in the back, voided large quantities of urine, and had periodical spells of fever with great thirst, but no hunger. Bowels irregular, sometimes constipated, and sometimes diarrhœal. He had been attended by his family physician, a respectable practitioner of this neighborhood. Last summer he observed that his nose would commence to bleed on the slightest occasion and that it was hard to arrest it. On the 15th of August his nose bled over five hours, but was finally arrested by application of some remedies prescribed by his physician. From that time on his health grew rapidly worse. A general weakness supervened, and pains in the lower extremities, in the back, and over the right hypochondrium became nearly constant. From time to time his feet were found swollen in the morning, but natural again in the evening. The quantity of daily urine grew steadily larger. His medical attendant advised him to consult another physician, which he neglected to do, because at that time a pamphlet of "Warner's Safe Liver and Kidney Cure" fell into his hands, which induced him to buy several bottles. These he took as directed, but his state grew worse from day to day. Finally towards the middle of December his nose began to bleed again, and bled for twenty four hours before his family physician was able to arrest it. On the same day the gums of the upper maxilla began to bleed, which they continued to do till his death. In the beginning of January I was summoned at night to see him, as another bleeding fit had occurred. He had been bleeding over eight hours when I arrived. It is scarcely necessary to give a minute description of the *status præsens*. The blood dripping from his nose was of dark red color, coming sometimes drop by drop, and sometimes in a continual stream. Having learned what had been done, I used the liquor ergot. purific. hypodermically, ten drops in a little water, and gave him internally a small dose of fluid extract of Jamaica Dogwood, inasmuch as he had had no rest for three days. Half an hour later the remedies were repeated, and in twenty minutes the epistaxis was arrested, when the patient soon fell into a calm sleep. The gums continuing to bleed, a strong solution of tannic acid was applied. It covered the excoriated places with a kind of membrane, similar to that of collodium, and thus, for a time at least, arrested the hemorrhage. About a fortnight later another attack of bleeding came on, from which the patient succumbed in a few hours.

In this case the fluid extract of Jamaica Dogwood proved itself exactly the remedy necessary to procure rest, ease and sleep for the sufferer. It has certainly not the strength, power, or activity of opium and its salts, but neither has it the host of bad consequences which follow so closely in the train of that great anodyne.

Jamaica Dogwood as a Soporific.

Report 24.†—Patient, an aged lady who had suffered for four years, from migraine, and frequent attacks of neuralgia, weakened and much reduced from long suffering with asthma and chronic bronchial irritation. I commenced to use the Jamaica Dogwood in this case for the purpose of relieving insomnia. I commenced with thirty drops at bedtime. The patient most positively stated that her sleep was more quiet, and several hours more were had, the first night after taking it. The dose was increased to nearly one teaspoonful at bed time, and in about a week she expressed herself satisfied. Sleep and rest were nature's great restoratives in this case, and increase of strength naturally followed. But the pain was not entirely subdued, and something more was demanded. As the patient had a few years before contracted malarial fever, and had had occasional attacks of chills and fever afterward, it occurred to me that quinia, or some preparation of bark, might be profitably employed. Four grains of cinchonidia at 9 and 11 A. M., was given regularly for several weeks, and the result was entirely satisfactory to patient and doctor.

Report 25.‡—Not long since I was in attendance upon a young woman, then in the seventh month of her first pregnancy. There seemed to be in her case strong indications of premature labor, which in no way yielded to large and frequently repeated

* Jos Ziteke, M. D., of Illinois, in the Therapeutic Gazette, 1884, p. 159.
† J. F. Fitzsimmons, M. D., of Ohio, in the Therapeutic Gazette, 1881, p. 89.
‡ Coleman Rogers, M. D., in Louisville Medical News.

doses of chloral and the bromides. The labor pains yielded promptly to opiate enemata. She ceased to have trouble on that score, but sometime afterward she began to pass restless and sleepless nights, awaking in the morning jaded and unrefreshed, and passing through the ensuing day. These symptoms were not due to pain or distress of any kind. It was a case of insomnia, pure and simple. For this condition of things chloral and the bromides in large doses were called into requisition without the least favorable effect. Resort was again had to opiates. While under their effect she slept at night, but awoke in the morning feeling utterly miserable under the influence as she was, and as she continued to be during the day, of all the disagreeable effects of the drug. The nausea, constipation, thirst, loss of appetite, etc., got to be so unendurable that she preferred the restless nights to being thus harassed by opium. At this juncture I determined to put her upon the fluid extract of Jamaica Dogwood, as prepared and offered by Messrs. Parke, Davis & Co., of Detroit. The effect was simply magical. Under drachm doses of this agent, repeated once or twice during the night, she began to sleep quietly, awaking in the morning refreshed and comfortable, without a single untoward symptom. There was an absence of nausea, thirst, constipation, etc., and altogether she was wonderfully improved.

Report 26.*—I recently gave a half ounce vial to one of our most distinguished senators, who applied to me for an opiate to make him sleep. In consequence of great mental labor and anxiety, he had been unable to sleep for several nights. He had just delivered a masterpiece of oratory in the senate for which he was being warmly applauded throughout the country. He reported to me next day that the medicine had worked "like a charm," fell asleep in 15 minutes, slept all night, and awoke refreshed and feeling not the slightest inconvenience. My experience in the use of this remedy, though still rather limited, is sufficient to make it a favorite. I give it in half drachm doses and find its effects decidedly hypnotic and anodyne, without any of the objections which attach to opiates.

Report 27.†—I wish to call the attention of my colleagues to the above named drug, which up to this date has been only partially proved, but from what we already know of its effects, we may well regard it as one of the *desiderata* of the healing art. In one word, from what I have seen of its action, I regard it as both hypnotic and anodyne, and in a few well defined cases may be employed as a reliable substitute for opium. In certain forms of psycho-neuroses, and in primary delusional insanity, certain phases and symptoms present themselves that can be alleviated by this remedy. I refer to the sleeplessness of the insane, something very difficult to control, as is well known and acknowledged by all who are experienced in the treatment of this class of mental diseases. At the present time, we have in mind the case of an elderly lady that we are treating in private. This patient has had a mental trouble for months, has delusions, and is partially demented; she cannot sleep, and this condition has lasted so long that she has worn out all the members of her immediate family from anxious watching. Many remedies were tried with indifferent and very unsatisfactory results, until I gave *piscidia*, which seems to have a most charming effect upon her.

The dose administered is twenty drops given at 4 p. m., and a second dose of fifteen drops may be given about an hour and a half after. I have used the fluid extract, as prepared by Parke, Davis & Co., Detroit, who first called the attention of the profession to its virtues. In one other case of mental disease, monomania with sleeplessness, it quieted the patient and gave refreshing sleep. In hopeless cases of phthisis pulmonalis in the last stages, it may be given, and I have found it to produce rest and sleep, being sedative in its action, and alleviating the cough. In a case of troublesome thoracic neuralgia, where many remedies were administered judiciously, but without effect, this medicine relieved the patient of his pains, and in time a cure was the result. I can also refer to a case of neuralgia of the face and eye, that recurred in spite of the best treatment that was greatly palliated, and finally cured by the *piscidia*, given in doses of from 25 to 30 drops. In one case of neuralgia of the cœliac plexus this remedy seems to have a good effect, and I think is benefiting the patient.

I may add that all the cases that I have quoted were refractory examples where ordinary remedies failed to do much good, so that I can well regard the Jamaica Dogwood as a "desideratum," and at least worthy of further trial and study.

Report 28.‡—Case 1.—Jamaica Dogwood acted splendidly in a case. A most dis-

* F. E. Daniel, M. D., of Mississippi, in Therapeutic Gazette, May, 1880, p. 125.
† Griswold Comstock, M. D., in N. Y. Med. Times (Medical Age, 1887; p. 431).
‡ J. Hodgkinson, M. D., Edinburgh, Medical Officer, Scotland, in Therapeutic Gazette, 1884, p. 16.

tressing one, of cirrhotic Bright's disease as a soporific. Calm sleep for about five hours and semi-dosing for as much longer, from dose ♏x every hour till about four had been given. No apparent ill-effects followed, neither did it seem to lose its power from continuation.

Case 2.—My own child, when only three days old, got three drops at bedtime with no appreciable effect save violent purging, pupils normal and active; cried much. Two nights of this; third night the dose was doubled and ten drops chloric æther added. Sleep quiet and natural, but light, child being easily roused. Sleep lasted about six hours on an average. He had it for nearly two weeks in this way with little noticeable variation in the effects, and during this time the bowels became constipated. The little fellow was almost devoid of fat, but unusually muscular and strong, both weighing and measuring much above the average. He had the breast.

Report 29.*—To allay pain or produce sleep, Jamaica Dogwood can be used in doses of from ten drops to one and a half drachms. In cases of insomnia, especially of long-standing, I prefer to give it in twenty- to thirty-drop doses and repeat every two or three hours till the result is produced, rather than depend on large single doses.

℞ Fl. ext. piscidiæ erythrinæ..... .....
Glycerin. .... ää ʒj.
M. Sig.—ʒj every four hours.

This of course in long-standing or persistent insomnia. We have seen no bad results. It has been used in carious aching teeth, applying in the cavity on a dossil of lint. While I would not object to this, I should most certainly give it internally at the same time.

Report 30.†—I have used Jamaica Dogwood as a soporific. It produces refreshing sleep, from which my patients awake without any unpleasant effect. This commends it to the profession. As a nervous sedative I have used it in cases of neuralgia and toothache, with the most prompt success. It acts upon the nerve centers in a peculiar manner. It does not produce cerebral hyperæmia, as opium is known to do.

Report 31.‡—After a thorough trial of this new remedy, I am now prepared to make a report to the profession. And I must say that many who are writing about it are mistaken in regard to it. I have not found it narcotic, but simply soporific, and calmative to the nervous system. It produces profound and refreshing sleep without any tendency to produce congestion of the brain as opium does. I had a case of asthma, with great erethism and sleeplessness, in which I gave five drops of fluid extract at night, and the patient fell asleep, and slept for several hours, and then awakened without any nausea or other unpleasant effects.

Report 32 §—Three months ago I introduced Jamaica Dogwood at the dispensary of the Medical College of Ohio, and, to judge from the results that I obtained, there is no doubt that the remedy will work its own way if only given a trial. To give the reader an idea in what class of cases the drug was prescribed, and the dose necessary to produce the effect, I append the following history of cases. The cases have not been selected for the purpose of making a good report, but taken just as they presented themselves for treatment at the clinic.

Case 1.—Patrick M., æt. 45, made application for the relief of pain in his eye; he was suffering from the effects of an injury to the eye-ball, which caused a general inflammation of all the structures of the eye—panophthalmitis. Patient complained of not having slept for a number of nights on account of the severity of the pain. Jamaica Dogwood was ordered in half-drachm doses to be repeated every two hours during the afternoon and evening. Next morning, patient stated that he had slept until 3 A.M., and felt very much refreshed. The dose was now increased to one drachm every three hours, and the effects were more lasting, but pleasant in every respect.

Case 2.—J. R., æt. 38, boiler maker by trade, was struck in the eye by a piece of iron from a steam shears, five weeks prior to his application at Prof. Seely's clinic. During the five weeks the patient had been treated by a homœopathic physician, who had prescribed sulphate of morphine for the relief of the almost intolerable pain that the patient was suffering in consequence of an irido-cyclitis that had been set up by the injury. The course of this disease is usually very tedious, and the effect that it has on the patient is very depressing, to say the least. The constant use of morphine only increases this effect by dis-

* John Fearn, M. D., in the California Medical Journal, April, 1888, p. 139.
† I. J. M. Goss, A.M., M.D., of Georgia, in the Therapeutic Gazette, 1880, p. 261.
‡ Ib., Therapeutic Gazette, 1880, p. 194.
§ C. W. Tangemann, M.D., of Cincinnati, O., in the Therapeutic Gazette, 1883, p. 356.

turbing digestion, binding up the bowels, etc., while the long-continued use of the drug may become a habit with the individual later on. In this class of cases dogwood is, beyond a doubt, far superior to any anodyne that has ever been used, as will be seen in the following. Morphia was discontinued, and fluid extract of Jamaica Dogwood in teaspoonful doses was ordered to be taken as often as necessary to control the pain. Patient took two doses in the morning, and slept quietly all afternoon, it was repeated, and he slept all night, making his appearance at the clinic with a bright face, and feeling very much refreshed after the sleep he enjoyed the previous night. He felt so much better after the use of this drug that he himself noticed the difference, though he did not know what he was taking. He has continued its use for nearly two weeks, and it still has the same effect and is given in the same dose. On being asked the question, "How are your bowels and stomach?" the reply was: "Oh, just right, my appetite is always good now, and I must go out once a day regular." Could you ask anything better than such an answer? It acts just as promptly and just as safely as morphine.

Report 33.*—Mr. B., laborer, æt. 58, admitted Oct. 2d. He was troubled with chronic rheumatism. Was much constipated. Took considerable morphine to relieve pain. Prescribed Jamaica Dogwood to relieve pain and procure sleep. Controlled constipation by means of diet, and then gradually decreased the Jamaica Dogwood till none was given. Discharged Nov. 5th much improved.

Case 2.—Mrs. P., subject to fits of insanity, preceded by sleepless nights. Compelled regularly to take morphine, chloral and the bromides to get any rest. Digestion much impaired and constipation. Administered Jamaica Dogwood freely at bedtime, producing quiet, refreshing sleep. Constipation gradually disappeared.

Report 34.†—The following is a report of cases in which the fluid extract of *Piscidia Erythrina*, or Jamaica Dogwood, was used during my service at almshouse and workhouse hospitals during the summer of 1885:

Case 1.—Bernard S. Large ulcer on foot. Great pain, and very restless at night; opiates gave no relief. April 20th.—Dogwood, ʒ i, at bedtime; slept very well; no untoward effects. April 21.—Slept all through. April 22.—Another good night. April 23.—Dose lessened; fair results. April 24.—Repeated first dose; good result.

Case 2.—Mary D. Phthisis. Unable to sleep on account of cough. April 28.—Dogwood, ʒ i, at bedtime; slept fairly well. April 29.—Slept well all night. April 30.—Did not sleep much. April 31.—Repeated dose; same effect.

Case 3.—Hannah J. Phthisis. May 4.—Dogwood, ʒ i; slept all night. May 5.—Rested more quietly. May 6.—Slept well.

Case 4.—John R. Alcoholism. Very restless and wakeful. May 5.—Dogwood, ʒ i; slept all night, and awoke refreshed. May 6.—Slept very well.

Case 5.—John A. Chronic Bright's disease. Has not slept well for five nights. May 12.—Dogwood, ʒ i; slept almost all night. May 13.—Did not sleep as well. May 14.—Repeated dose; no better result.

Case 6.—Maria F. Alcoholism. Gave Dogwood, ʒ i, night of May 20. Patient slept all night. May 21, 22, 23.—Repeated dose; same effect each night; good night's rest; and woke with no unpleasant feeling.

Case 7.—Henry M. Phthisis. Unable to sleep on account of cough which is very troublesome. Has tried potass. brom., ir. hyoscyam., and other hypnotics with no good result. On night of June 5 gave Dogwood, ʒ i, with result that patient slept fairly well; less cough. June 6–10.—Gave Dogwood each night, during which patient slept well, and was less troubled on awakening than with any other medicine he had taken.

Case 8.—William S. Fracture of radius. Unable to sleep on account of pain in arm. Ordered Dogwood, ʒ i, to be given him on night of June 30. Slept all night. July 1, 2 and 3.—Gave same dose, on all of which nights the same effect was obtained.

Case 9.—Maggie McD. Comp. and fracture of the olecranon. Cannot sleep on account of pain, very restless. Opium or morphine makes her worse; bromide has no effect unless given in very large doses. Tried Dogwood, ʒ i, during night of August 2, and found it to work very satisfactorily, patient sleeping nicely all night. August 3.—Same result. August 4, 5 and 6.—Slept well all night. August 10.—Again given; good sleep. August 12.—Same result.

Case 10.—Julia M. Syphilis. Considerable pain in both legs, has not enjoyed a good night's sleep in a long time. August 10.—Dogwood, ʒ i; slept fairly well. August

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* A. Hamilton Stevens, M. D., Physician to St. Mark's Hospital, Grand Rapids, Mich., in the Therapeutic Gazette, 1882, p. 14.

† F. Spencer Halsey, M. D., of New York, in the Therapeutic Gazette, 1886, p. 442.

11.—℥ i; slept all night. August 12.—Did not sleep as well. August 13.—Same; did not sleep until after midnight. August 14.—℥ i; complained of severe pain in head; no sleep. August 15.—℥ ss; no pain; less restlessness. August 17.—℥ i again; slept well. August 18 and 19.—Same result. August 20.—Repeated dose; same effect.

Case 11.—Martin W. Large varicose ulcer on leg. Suffers much pain; opiates do not affect him pleasantly. August 27.—He was given ℥ i of Dogwood; result, he slept very well. August 28.—Slept all night. August 30.—Same result. August 31.—Repeated dose with same effect.

Case 12.—Lizzie K. Facial neuralgia. Suffers great pain in the side of her face, the pain increasing in severity. Ordered Dogwood, ℥ ss, morning of August 31, and by afternoon she was much more comfortable; repeated dose at night; patient slept fairly well. September 1, 2 and 3.—Gave ℥ i doses each night; patient slept well all night.

Case 13.—Edward S. Suddenly taken night of September 5 with severe pains in the abdomen, vomiting, cramps, all pointing to an attack of cholera morbus. I gave him as soon as possible ℥ ss Dogwood, and repeated dose in half an hour. Before the second dose had been taken the cramps had lessened, the pain greatly diminished, and, after the second, he fell into a quiet sleep, from which he awoke the next morning feeling much better. On night of 7th he was given another dose of Dogwood, ℥ i, and slept almost the entire night through, waking the next morning in a refreshed condition

Case 14.—Henry J. Fell from his bed night of September 20, and sustained a fracture of two ribs. He suffered considerable pain and uneasiness, and, not wishing to give him morphine, I gave him Dogwood, ℥ j, and had the satisfaction of seeing him a couple of hours later in a deep sleep. September 21, 22, 23, 24.—Was given Dogwood, ℥ i, on each of these dates, and always with the same result, viz., a sound sleep, and with no unpleasant after-effects.

These few cases, culled from a number of months' experience in hospital practice, have led me to express my opinion as to the value of Jamaica Dogwood. I have found it to be a most excellent hypnotic and anodyne; in no one case of those in which I employed it has it failed to relieve pain and induce sleep. One great advantage connected with it is that patients, after taking it, awake with none of the unpleasant after-effects which opium induces. Not only does it relieve pain and produce sleep, but in many cases it relieves cough, notably the case in phthisis. This experience, though very limited, has induced me to become very much attached to this remedy, and in every case where such an action as comes from its use is indicated I have always employed it with most satisfactory results.

Jamaica Dogwood in Neuralgia.

Report 35.*—My brother, a paralytic, suffered intense neuralgic pain. Jamaica Dogwood relieved him of his neuralgia and gave him sleep.

Report 36.†—Last week there came under my care an inveterate case of *neuralgia*, which had been treated by many, very many physicians, to no purpose. I found the lady in the commencement of one of her periodic seizures, and the assertion of both her husband and herself that she could not be relieved short of several days, discouraged me from attempting anything by way of curative treatment during the paroxysm. I, however, put her on Jamaica Dogwood, and agreeably surprised both the patient and myself by securing perfect relief from the pain in twenty minutes. She fell asleep soon after and had a good night's rest. The continued use of the remedy has kept her easy since the first, something which never before happened in her case, the pain always continuing at its height during the paroxysm.

Report 37.‡—Some months since I received a sample of the Jamaica Dogwood, which I gave a fair trial in a case of facial neuralgia, and found it to work charmingly. The patient was a lady 50 years of age. I found the patient with her hand to her face suffering most agonizing pain, as she had been for some days and every day growing worse. I gave her as follows:

℞ Bromide potass..... ℥ ss.
Fluid ext. Jamaica Dogwood..... ..... ℥ ij.
Syrup, q. s. ad ... ... ℥ jv.
M. Sig. One teaspoonful every hour until four doses were taken.

She was entirely relieved. The pain returned periodically every afternoon. I ordered

* J. C. Roberts, M. D., of Tennessee, in the Therapeutic Gazette, 1881, p. 330.
† E. H. Harris, M. D., of Iowa, in the Therapeutic Gazette, 1880, p. 331.
‡ F. T. Montague, M. D., of Indiana, in the Therapeutic Gazette, 1880, p. 321.

the same dose repeated during three days, the pain each day growing lighter, and on the fourth day she was entirely free from pain, and has had no return since—six weeks ago. She had a similar attack a year ago in which she tells me her physician kept her entirely under the influence of morphia for six weeks, until she wore the disease out.

Report 38.*—At your request I give you my experience with Jamaica Dogwood. I have used it in but two cases, both cranial neuralgia in nervous, delicate females, æt. 24 and 27 years. Both patients are subject to very obstinate attacks of neuralgia, for which I have frequently prescribed for some years. Miss B. was suffering several months ago with an attack more severe than usual, from which for days she got only partial relief, as she could not bear opium, and no sleep except from full doses of chloral and potassium bromide combined. A small bottle of the fluid extract of Jamaica Dogwood was left in my office just at that time by the agent of Messrs. Parke, Davis & Co., and I determined to try it on this case. I took it to my patient next morning—she was still suffering—and gave her two drachms, with the assurance that it would relieve her, and directed her to take two drachms more at night, and she would have a comfortable night's rest. When I called next day she said the pain ceased in about half an hour after she took the medicine, and she had slept better that night than she had for weeks. I saw nothing more of her, until two days after I met her on the street. She said her neuralgia had not returned, that she had been perfectly well since I saw her, except an attack of sick headache to which she was subject; and that the medicine I had given relieved her neuralgia so quick she thought it would cure her head also, and took a dose (two drachms). How did it act? I asked. "Well, I went right off to sleep, and did not wake until next morning, when I felt as fresh and comfortable as I ever did." In the other case the same dose (two drachms) was given, with the same result; the neuralgia ceased in about an hour, and she has had no return since, which in both cases is a longer interval free from neuralgia than they have had for years.

Report 39†—Case 1.—The first case in which I administered Jamaica Dogwood was that of a Mrs. B., æt. 32, and married eight years, but without issue. She came under my care a few months previously suffering from pelvic cellulitis, from which she recovered without suppuration, hot-water injections and opium suppositories being the principal agents employed. The inflammation was unusually severe and extensive, and Dr. I. S. Hamilton, of Tecumseh, who had treated the lady in a previous attack, was sent for to see her with me. Previous to this attack, Mrs. B. had had severe attacks of ovarian neuralgia. After her recovery from the inflammation the neuralgia occurred more frequently and with increased intensity. Morphia in large doses hypodermically administered was necessary to relieve the excruciating pain. The after-effects of the morphia were, however, so disagreeable as to cause a wish for another anodyne, and I determined to try Jamaica Dogwood, which I gave in twenty-drop doses of the fluid extract of the drug, to be repeated every two hours until relief followed. The first dose allayed the pain very materially, and shortly after the second dose it entirely disappeared. This is the history of repeated attacks which she suffered during the course of constitutional treatment, of iron, strychnine and quinine, on which she was placed and which was probably instrumental in the subsequent immunity from attacks.

Case 2.—Mrs. M.; had two months previously suffered from an attack of hemiplegia. The occasion of my being sent for was the annoying, wearing pain she experienced in her spine, located through the extent of the dorsal region. Because of its excitant effects in her case, morphia was not desirable, and chloral hydrate and bromide of potassium had been tried without benefit. I ordered Jamaica Dogwood in commencing doses of ten drops of the fluid extract, but though perseveringly administered, it disturbed the stomach, occasioning vomiting, to such an extent as to necessitate its discontinuance without having secured from it any relief.

Case 3.—J. B. suffered from facial neuralgia. Twenty-drop doses gave him as prompt relief as he had previously experienced from the hypodermic use of morphia.

Report 40.‡—Mr. A. B., a fleshy man, æt. 67, had a rather severe attack of neuralgia of the heart. Gave him half a teaspoonful of the fluid extract of *Piscidia Erythrina*, and in ten minutes most of the pain and disagreeable symptoms had subsided. Other remedies completed the cure. In this case the prompt action of this drug was particularly noticeable.

Report 41.§—I have used fluid extract Jamaica Dogwood in two cases of spinal

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* M. Ford, M. D., in Louisville Medical News.
† J. J. Mulheron, M. D., in the Therapeutic Gazette, 1880, p. 155.
‡ W. H. Rouse, M. D., of Detroit, Mich., in the Therapeutic Gazette, 1880, p. 291.
§ C. G. Estabrook, M. D., of New York, in New Preparations, 1879, p. 281.

irritation, and in one marked case of neurasthenia, both attended with almost constant pain. For the relief of this symptom various sedatives have been used, and with the exception of opium, all have failed. But its disagreeable after-effects have made its administration a dread to the sufferers. Having recently received a sample bottle of extract Jamaica Dogwood, I divided it between the cases, and am happy to report that it thus far supplies the place of opium most admirably, without constipating, or, in fact, being followed by any of the disagreeable symptoms that are the bane of the latter.

Report 42.*—A patient 48 years of age, of full habit and irritable stomach, consulted me for severe facial neuralgia. He could not tolerate an opiate given for temporary relief, and I accordingly placed him on Jamaica Dogwood. The result demonstrated the pronounced anodyne properties of the latter. I regard it as most assuredly destined to receive a permanent place among our list of narcotics.

Report 43.†—General D., of Cedar Rapids, had, from exposure, contracted a terrible neuralgia, which exhibited itself in the superior and inferior maxillary, and inferior dental branches of the tri-facial, and the difficulty was aggravated if not primarily caused by carious teeth. Gen. D. had consulted several physicians, but without relief, and being guests at the same hotel he related his trouble to me. It occurred to me that this would be a proper case for Jamaica Dogwood, and, having a sample vial, I suggested its use to my patient, who consented, and placed himself entirely under my charge. I saturated a pledget of cotton-wool with the fluid extract, and placed it along the affected side against the gums and teeth. I bathed the outside of the face over the course of the nerves with the extract, and administered 10 gtt. in water internally. This was about 8 P.M. on the evening of the 3d. The General passed a comfortable night, and was much relieved; suffered very little on Sunday; kept the cotton in the mouth wet with the extract; passed Sunday evening in pleasant conversation; repeated the dose internally at bedtime; slept soundly, and on Monday was perfectly well, notwithstanding the fact that Monday was the most intensely rainy day that it has been my misfortune to see.

Report 44.‡—On the morning of October 28th I was called to see Mrs. A., a robust healthy-looking woman, æt. 32, mother of five children. On arrival, found her suffering extremely with trigeminal neuralgia; pulse 84; temperature, 95.5°. Upon inquiry I learned the following history of her case: On the morning of September 23d she had given birth to a large male child, after three hours' labor. The midwife in attendance had "considerable difficulty" in delivering the placenta, and, although there was no more hæmorrhage than was usual with her, she suffered very much with after-pains for several days—longer and more severe than ever before—and when the "pains" ceased the supra-orbital neuralgia began.

Thinking her trouble was of septic origin, I made a digital examination to ascertain the condition of the uterus. The process of involution was well advanced, and the lochia had entirely disappeared.

I relieved the pain by morphia hypodermically, then prescribed the following if the pain returned:

℞ Jamaica dogwood, fl. ext..... ℥iv.
Sig.: Take from 30 drops to teaspoonful every hour until relieved.

Her neuralgia returning in the evening, she used the remedy as prescribed, for four hours, with the effect of relieving the pain altogether; but slight hæmorrhage from the uterus made its appearance. This I thought most probably the regular catamenial flow, the patient being unusually plethoric, and having menstruated regularly while nursing her last child. Ordered the remedy continued should pain return. Some twenty four hours afterward, pretty severe pain returned in the right orbit, the remedy was again administered, and 30 minims repeated in an hour; the pain was again relieved, but the hæmorrhage was increased to an alarming degree. Upon arrival I administered ergot, which controlled the hæmorrhage; then prescribed:

℞ Jamaica dogwood, fl. ext ..... ℥ij.
Fl. ext. ergot ..... ℥j.
M. S.: Take a teaspoonful every hour when pain exists, until relieved.

This controlled the pain and hæmorrhage, after which there was no further trouble.

The point of interest in this case is that this (in my experience) most excellent remedy in that particular form of neuralgia (of fifth pair of nerves), must be administered with cau-

* J. T. Davis, M.D., of Indiana, in the Therapeutic Gazette, 1882, p. 62.
† W. T. Thackeray, M.D., in the Therapeutic Gazette, 1884, p. 17.
‡ Dr. C. P. McNab in Southern Practitioner, February, 1885.

tion in all cases of existing, or where from surrounding circumstances we might anticipate, uterine hæmorrhage.

Report 45.*—In a case of severe neuralgia of the face and head in which the pain was terrific, I prescribed:

℞ Tr. gelsem. ..... ℥ ss.
Fl. ext. piscidiæ erythrinæ..... ʒ iij.
Syr. rhei et pot. ad ..... ʒ iv.
M. Sig.—ʒ i every hour until relief comes.

The result was most pleasing, this formula with a little quinine to overcome periodicity completed the cure; the case had been running some time.

One week ago I was called to prescribe for a case of neuralgia of the right kidney, the pain came on spasmodically, and was so severe that it drew the man double; it very much simulated the passage of a renal calculus. The kidneys had been doing their work very scantily. I prescribed:

℞ Fl. ext. piscidiæ erythrinæ..... .... ℥ ij.
Fl. ext. parosmæ..... ..... ℥ ij. ʒ iv.
Syr. rhei et pot .... ʒ iij.
M. Sig.—ʒ i and repeat as per instructions.

In this case I ordered hot packs to the painful part. The man, living alone, had no convenience for packs, so he depended on the medicine.

Jamaica Dogwood in Toothache.

Report 46.†—I had suffered a great deal of pain from a carious tooth, and had lost a night's rest through the tormentor. The pain suddenly left in the morning while I was on my way to the dentist's, and as it did not recur during the day, I temporarily changed my determination to have the tooth extracted. At nightfall however the pain returned with redoubled violence. Having a sample of the fluid extract of Jamaica Dogwood in my office, I saturated a piece of cotton wool with it and applied it to the cavity. The relief was almost immediate and continued through the night.

Report 47.‡—The prompt action of this remedy renders it valuable in relieving toothache and in mitigating the suffering during the extraction of teeth in cases in which, for any cause, anæsthetics are not admissible: Mrs. E. F. came into my office and requested me to extract several teeth. She, though a large and apparently healthy woman, was greatly excited and refused to have even the teeth examined. She took half a teaspoonful of the Jamaica Dogwood, rubbed the gums with it, and then quietly submitted to the extraction of four teeth. She reported very little suffering.

Report 48.§—I was suffering intensely with excruciating pain arising in the right jaw, from a decayed tooth, and after trying various remedies to relieve the pain, and failing, then wetted a bit of cotton in the fluid extract and applied it to the gum, and received relief in a short time. The introduction of Jamaica Dogwood supplies a desideratum in medicine.

Report 49.‖—I have had considerable experience with Jamaica Dogwood in quite a variety of cases and believe that in it we have a remedy that is nearer a specific for toothache than any other local application. I have had fair success with it as an anodyne instead of opium, but have noted a few cases in which it would not produce any effect. Where its action as an anodyne was produced, however, it was superior to opium in not causing constipation.

Jamaica Dogwood in Rheumatism.

Report 50.¶—A man æt. 35 was suffering from acute articular rheumatism, affecting principally the knee and hip joints. He was unable to turn in bed without great suffering. Fifteen minims of the fluid extract Jamaica Dogwood, every two to eight hours, kept him quite comfortable till the disease yielded to the ordinary remedies.

Report 51.**—Mrs. I. M., æt. 50. Diagnosis: Acute rheumatism. There was also

* Jno. Fearn, M. D., in the California Medical Journal, April, 1883, p. 139.
† J. L. Mulherin, M. D., in the Therapeutic Gazette, 1880, p. 155.
‡ W. H. Rouse, M. D., Detroit, Mich., in the Therapeutic Gazette, 1880, p. 291.
§ [illegible] in the Therapeutic Gazette, 1880, p. 164.
‖ Dr. W. A. Johnston, M. D., Raleigh, Ind., in the Therapeutic Gazette, 1882, p. 410.
¶ W. H. Rouse, M. D., of Detroit, Mich., in the Therapeutic Gazette, 1880, p. 291.
** Jos. Zitzke, M. D., of Illinois, in the Therapeutic Gazette, 1884, p. 159.

a pectoral abscess covering the whole right side, from the fourth rib upward and outward. No albumen in the urine; pulse 120; temperature 102° F. Patient complained of great pain; dull headache and sleeplessness; bowels constipated. Patient had been taking sulphate of quinine and morphine in powders. After examination it was determined to change treatment, and salicylic acid and Jamaica Dogwood were substituted for the quinine and morphine, the latter to be given in the evening at an interval of one-half hour in twelve to fifteen-drop doses. Poultices to be applied day and night.

Twenty-four hours after this change in treatment, the fever had nearly gone, the patient had a good night of rest, and, for the first time in three weeks, she asked for something to eat. As the pain disappeared from the joints entirely in the next seven days, the abscess alone occupied our attention. The poultices were continued, and the Jamaica Dogwood given at night time in the original doses. Five or six days later, the abscess was opened and about two pints of greenish yellow pus was evacuated. A bandage was applied around the chest and drainage established. Poultices continued yet for several days. General treatment from now on till recovery, consisted of nutritious diet and tonic remedies.

Report 52.*—Have used this drug in other diseases with marked benefit. I recall to mind a case of acute inflammatory rheumatism in a young girl, the pain being so severe she could obtain no sleep for several nights. Thirty drops of the remedy had the desired effect.

Jamaica Dogwood in Sciatica.

Report 53.†—February 25th I was called to see Mrs. D., æt. 36, suffering from a long and severe attack of sciatica. She had tried many remedies to alleviate suffering, but had found no relief from anything taken, except while under the influence of morphia, which drug invariably left her with sick stomach and great nausea and retching. I at once determined to test the virtues of *Piscidia Erythrina* in her case, to relieve the pain and procure rest. Therefore prescribed:

℞ Piscidia erythrinæ ..... 3 ss.
Aquæ ..... 3 iij.
Mix, and take one draught on retiring for the night, at which hour I saw her.

The same quantity to be repeated in one hour. Eight o'clock next morning I called and found the lady resting quietly and free from pain; says she has passed the first comfortable night she had passed for several weeks; no pain, no sickness of the stomach, and a fair appetite for her breakfast. I now prescribed and applied adhesive blisters three-fourths of an inch in diameter and every two inches along the sciatic nerve, commencing at the hip joint and tracing the nerve, to the number of 16. These, after opening the blisters the next day, I let fall off in the course of 8 to 12 days. Directed the continuance of the piscidia as the pain required relief, and left my patient. Before the blisters fell off my patient was walking around, and in a week more was doing her house work. I do not wish to be understood as saying that the piscidia was in this case the agent that cured the sciatica, only that she obtained such relief from her suffering as all other agents failed to give. I have treated many cases of sciatica in the same manner, that is, with the blisters, but always some preparation of opium to relieve the pain, but I do claim that I have never, in many years of practice, met so complete success and consequent satisfaction as I obtained in this case, both as to the relief of pain and the absence of any of the unpleasant sequelæ following the use of opium or its salts. I have watched this patient almost daily since her recovery, as she lives next door to me, and I am unable to see any unfavorable constitutional effects from the use of the drug.

Jamaica Dogwood in Cancers, Tumors, etc.

Report 54.‡—Case 1.—Some months ago a patient, suffering from cancer, came under my care. She was a woman of nervous temperament, and suffered excessively. Opiates had been used long and faithfully in what might be regarded as excessive doses, two teaspoonfuls at bed-time being about the usual quantity requisite to give tolerable ease. The bowels were constipated, moving once in about eight to fifteen days, unless stimulated by cathartics. The obstruction of the bowels aggravated the pain. Various other narcotics were substituted for the opium, but the results were not satisfactory.

*L. B. Firth, M. D., of the Brooklyn Eclectic Dispensary, in the Therapeutic Gazette, 1883, p. 101.
† J. M. Blackerby, M. D., Milford, Ky., in the Therapeutic Gazette, 1880, p. 150.
‡ W. H. Rouse, M. D., of Detroit, Mich., in the Therapeutic Gazette, 1880, p. 291.

Codein, one of the salts of opium proved to be one of the best; but still the patient and friends asked for something else to ease. Having pretty nearly exhausted my resources, I was induced to try the effects of Jamaica Dogwood, a medicine which has been in use for a number of years in the West Indies, but comparatively new to the physicians in this locality. The results were so favorable, that the medicine has since been used with considerable confidence.

Report 55 *—I was called upon two years ago by Mrs. Delia Johnson, colored, æt. 35, married. Patient had never been pregnant; menstruated regularly in every particular, except that there was more pain than is ordinary; health generally good. She had been compelled to refrain from all exertion for six months because of an abdominal tumor, first discovered a year and a half before, that had progressively increased, causing corresponding inaptitude for physical exertion, and attention to household duties. She slept but little, and was despondent. The tumor, on examination, extended above the navel, and her abdomen, when she was in any position, had the appearance of a woman in the full term of pregnancy. It was decided that the tumor was a uterine fibroid. The uterus proper was considerably enlarged in neck and body. She was directed to take thirty drops of Jamaica Dogwood at intervals of eight and six hours for relief of pain and discomfort, and a syringeful of normal liquid ergot was injected at a point on the surface over the tumor. The use of the hypodermic syringe was repeated every forty-eight hours for ten days; the needle was always introduced perpendicularly and to the full extent of its length, the tissues of the abdominal walls being embraced between the thumb and finger of the left hand. After five administrations the instrument was irregularly employed two and three times a week for a month, and subsequently for three months once each week.

The dogwood was taken every day, once, or twice, she having discerned the impression it made on her, and at her own instance made the dose larger and smaller, according to the length or shortness of intervals, or frequency of repeating the dose of the medicine. This course was daily followed until she left to engage as laundress at Tate's Springs, after seven months of this treatment. Treatment was suspended from the last week of May, until the second week in November, last year. Then irregularly followed, injections being given once or twice a month for a few months when it was again stopped. The Jamaica Dogwood, at her own option, was taken perhaps once a week—sometimes more frequently, and occasionally not so often. This use of Jamaica Dogwood has caused none of the thirst of an inebriate, nor the miseries of an opium slave, nor the habitual resort to an agent to alter the sensations experienced by one in normal health.

It is notable that from the day the treatment of the woman began, there was perceptible, positive release from the incubus of inability, every successive day pressing more and more upon her to leave her bed, and her house, and begin again the discharge of active duties to which she had been accustomed. Upon these she entered within two months, gradually gaining physical, general ability. For a while there was no decrease in the size of the tumor, no alteration in the appearance of the abdominal enlargement. Within two weeks there was, on palpation, perceptible increase in the hardness of the tumor, as felt through the tissues of the abdominal walls. In the course of several weeks more, the size of the tumor was discovered to have lessened. It afterwards certainly decreased, until from apparently completely filling the abdominal cavity, it is now no larger than a thick-rind Florida orange. Pain at menstrual periods is almost absent, except on occasions from tangible cause, and then easily controlled by the dogwood. The enlargement of the womb has also abated.

I have used other preparations of ergot, and hypodermically and successfully, in treating fibroid tumors, but in no instance with as rapid lessening of the mass, as in this one under the administration of Normal Liquid Ergot and Jamaica Dogwood.

The circumstances of the above case lead to the question, does Jamaica Dogwood make impression adverse to the formation and growth of fibroids; or does it have an action favoring the retrogression of maturing, or matured fibroids? Or is it, under definite conditions of the organism, not well organized as an efficient adjuvant to ergot, in the treatment of fibroid tumors?

Report 56.†—Jamaica Dogwood has won a high place in the materia medica, and it is with a view to strengthening its claim to this rank that I lay before the readers of the Gazette the following case with the methods and results of treatment.

Miss. D. applied for treatment at the South Western Hospital, April 10, 1883. She was born in Ireland twenty seven years ago. After a bitter and hopeless struggle for

* Frank A. Ramsey, M. D., of Knoxville, Tenn., in the Therapeutic Gazette, 1884, p. 493.
† C. C. Herr, M. D., S. W. Hospital, Philadelphia, Pa., in the Therapeutic Gazette, 1884, p. 495.

existence in her native country she came to America only to find the hand of adversity press more heavily upon her, her circumstances always growing worse. Poorly fed and poorly clad she soon felt the inroads of sickness and disease, and in this condition applied to the Jefferson Medical College Hospital for treatment. She was admitted to the hospital under the care of Dr. O. P. Rex. Here she remained for six weeks—emerging after the lapse of this time unimproved. During her residence in the hospital she was carefully dieted, her regimen consisting almost exclusively of milk. Very little medicine was administered. She felt weak when she came out, and for a while desisted from labor that she might gather strength. Almost one year elapsed from the date of her admission to the Jefferson College Hospital and the date of application for treatment at the South Western Hospital. During this interval she did household work by fits and starts, and when she sought our advice she was unable to perform any labor. She chiefly complained of a tumor in the region of the stomach. Upon examination a tumor was found to occupy the entire epigastric region. It was changeable in volume—sometimes larger, sometimes smaller. It could not be distinctly outlined as it seemed to merge by degrees into the surrounding structures. Both superficial and deep percussion (especially the latter) revealed general resonance. Auscultation yielded negative results. The cutaneous covering was intensely hyperæsthetic, though it was observable that by a diversion of her attention from the tumor ready manifestation could be indulged in without the production of suffering. Any profound mental impression which had no association with the morbid condition, for the time, would permit even rough handling of the tumor. Her general symptoms were those of a dyspeptic. There was great constipation, indifferent appetite, with great heaviness after eating, disturbed sleep, some headache, but to the examiner no visible evidence of failing health. There had been no emaciation, yet this troublesome tumor had been there for more than two years. I sent the patient—with a note—to Dr. S. W. Gross for examination. She came back to me with a note saying she had been in the Jefferson College Hospital under the care of Dr. Rex who made a diagnosis of "phantom" tumor. I quite concurred in this opinion. She was a hysterical subject moody and emotional. Having emerged from the care of Dr. Rex and the hospital without improvement I felt myself at loss to know what to do. First, I sought to correct the morbid state of the bowels; with this view I prescribed the following pill.

℞ Ext belladon ..... gr. ¼.
Ext physostigmæ ..... gr. ⅛.
Ext. genfianæ ..... gr. ¼.
Strych sulph. ..... gr. 1-40.
M. Ft. pil. No. 1, to be taken once daily.

This was continued during a period of ten days, with satisfactory results. The bowels were now kept soluble by a mild aperient. With a daily fecal evacuation she felt somewhat better in her general symptoms. Still the "tumor" persisted, and the time had now come when something must be done to remove it. She had heard vague hints of excision, and begged me not to cut it out. I soon disabused her mind of any fear in that direction, and in my dilemma (for I did not know what to do) I gave her a three-ounce vial of fluid extract of Jamaica Dogwood, to be taken in half drachm doses, three times daily, and requested her to report to me when the medicine was all taken. I did not expect to see her again, for I scarcely hoped for positive effects from the medicine. She was prompt to return, however, when the medicine was exhausted, for she had experienced signal benefit. The story she told me was that she had not felt so well for one year. I was delighted. I gave her more dogwood, with instructions to take it as before, and return to me when the vial was empty. In due course of time she came back, looking cheery and filled with gratitude for the good that had been done her. She said that was the only medicine she had taken which had done her good during a period of two years. Previously she had not been able to perform any kind of manual labor; now she works daily at household labor, and is enabled to make a good living. Slowly—under the influence of dogwood—the tumor disappeared, and along with it the hyperæsthesia. This tumor was a source of constant worry to her—a cause of almost mental distraction. She imagined only the worst, and looked forward to endless suffering and perhaps ultimate death under the surgeon's knife. This was her way of looking at the case, and indeed it was to be expected under the circumstances. This woman has been cured with the fluid extract of Jamaica Dogwood. How, it may be asked, do you explain this beneficial action of the remedy? I account for it on the basis of its antispasmodic action, coupled with a general tonic effect upon the nervous system. This case was, I think, a well-marked case of hysteria, and the

result of treatment shall encourage me in the use of this remedy in similar cases without regard to specific character—I mean in cases of hysteria irrespective of particular symptoms. I am persuaded that it will be found highly serviceable in these cases, and hope to see reports of benefits derived from its use.

Jamaica Dogwood in Delirium Tremens.

Report 57 *—Please try the following prescription for delirium tremens, *mania a potu*. It has worked wonders in my hands:

℞ Ext. erythroxylon coca, fl ..... ℥vi.
Ext. cocoa, fl ..... ℥iv.
Ext. Jamaica Dogwood, fl..... .... ℥iv.
Hoffman's anodyne, q. s., to fill two ounce bottle.

Dose, two teaspoonfuls every two hours till sleep is induced, then one teaspoonful every three, four or five hours, till the nervous system returns to a normal condition.

I think you will be pleased with this prescription. Fortunately I don't see enough of delirium tremens to establish the usefulness of the prescription in all cases, but so far as used I have never seen better, or even as good, results from any other remedy. The combination is worth studying, and a full analysis of it would be an instructive exercise.

Report 58.†—Case 1.—Mr. C., æt. 26, consulted me June 10, 1882. He has been drinking periodically for the past three years, steadily the last three weeks. Has had delirium tremens on two occasions, and applied to me for treatment during another attack; has not slept for several nights, no appetite, stomach very irritable, feels very nervous; has muscular tremor, etc.

Recommended that he partake of good beef tea, with fat carefully removed, and seasoned with capsicum. Advised abstinence from intoxicating drinks. Gave the following:

℞ Quiniæ sulph..... .... grs. xvj.
Acidi sulph. arom .... q. s.
Tr. sem. cardamomi co .... ℥ij.
Syr. aurantii cort..... ....q. s. ad ℥ij.
d. Sig: A teaspoonful three times daily.

Also for nausea:

℞ Bismuthi subnitr..... ..... ℥j
Etheris chlorici ..... ℥jss.
Glycerinæ .... ℥j.
Mucil acaciæ ..... ℥ss.
Aquæ menth. vir ..... q. s. ad. ℥ij.
M. ft. mistura. Sig: A teaspoonful every two or three hours

For the insomnia ordered the following:

℞ Potassii brom ..... gr. lxxx.
Chloral hydratis..... ..... ℥ijss.
Glycerinæ ..... ℥j.
Aquæ..... .....q. s. ad. ℥ij.
M. Sig. Two teaspoonfuls in water commencing at 10 P. M. and continuing every hour—if necessary—until three doses have been taken.

June 11. Found patient had passed a restless night. The condition of the stomach had so far improved that he was able to retain the bromide and chloral hydrate mixture, but otherwise was no better, and was fast going into acute delirium tremens. Discontinued the bismuth and quinia mixtures, and prescribed the following:

℞ Potassii bromidi..... ℥v-℈j.
Glycerinæ ..... ℥ij
Tr lavandulæ co ..... ℥j
Aquæ ..... q. s. ad. ℥iv.
M. Sig.: Two teaspoonfuls every two hours.

On calling at night found the patient had not slept. Gave hypodermic injection of morphia (½ gr.). Called again in a few hours, and found this had no effect. Gave ½ gr. ext. Indian hemp.

* Dr. J. A. Mays, in American Practitioner and News.
† L. B. Firth, M. D., of the Brooklyn Eclectic Dispensary, Brooklyn, N. Y., in the Therapeutic Gazette, 1883, p. 101.

June 12. Had no sleep the night before; has hallucinations; delirium fully developed; wants to jump out of the window, and can with difficulty be restrained. Continued the bromide mixture every three hours. Gave also tincture digitalis, but without benefit. Called at night; found patient delirious as ever. Friends importuned me to give something to make patient sleep. I replied that that was what I was trying to do, believing that if sleep did not have a curative effect, it would at least help exhausted nature to recuperate. Did not like to give opium; morphia, hypodermically, failed, as did also extract Indian hemp, hydrate of chloral, and bromide of potassium. What was I to do? Remembered I had some of Parke, Davis & Co.'s fluid extract Jamaica Dogwood, and thought it would be a good case in which to test its virtue as a hypnotic. Gave fluid extract *Piscidia Erythrina*, ℥ j. in one dose. To be repeated in two or three hours, if first dose failed.

June 13. Was pleased to find that my patient had quite a good sleep the night before. One dose of the Dogwood sufficed. Patient much better. Discontinued bromide mixture and gave instead:

℞ Quiniæ sulph..... grs. xxxij.
Acidi phosphorici dil..... ℥ vss.
Elixir. calisayæ.....q. s. ad ℥ iv.

M. Sig.: A teaspoonful three times daily. Gave fluid extract Jamaica Dogwood, ʒ i, at night. Patient rapidly convalesced.

August 14. Was called again to see same patient. Found him again suffering from the effects of a protracted debauch. Exhibited some premonitory symptoms of acute delirium tremens. Was troubled with insomnia. Gave him the bromide mixture through the day. This had no effect in quieting him, or producing sleep. Gave at night in one dose:

Fl. ext. piscidia erythrina (P., D. & Co.'s)..... ʒ i.

August 15. Slept but an hour the night before. At night gave the following in one dose:

Fl. ext. piscidia erythrina (P., D. & Co.'s)..... ʒ iss.

August 16. Slept all night after taking the dogwood. Feels much better. Ordered acid phosphates, and the Jamaica Dogwood to be given at night for a few nights. Patient soon convalesced.

October 14. Was called again to see same patient. He is still a victim to alcohol. Has been on a spree more protracted than ever. Has all the premonitory symptoms of acute delirium tremens, with more gastric irritation than usual. Gave bromides, but stomach would not tolerate them. Rejected beef tea and all other nourishments. Prescribed:

℞ Bismuthi subcarb..... ʒ i.
Etheris chlorici..... ʒ i.
Spts vini gal..... ʒ ij.
Glycerinæ..... ʒ i.
Mucil. acaciæ..... ʒ iv.
Aquæ menth. vir..... ʒ i.

M. Sig.: A teaspoonful every two hours. Alternate with this the following:

℞ Glycerinæ..... ʒ ij.
Aquæ camphoræ, q. s. ad ℥ ij.

M. Sig.: A teaspoonful.

Gave at night in one dose:

Ext. piscidia erythrina, fl. (P., D. & Co.'s)..... ʒ i.

Stomach would not tolerate the dogwood. Being informed of the fact, gave hypodermic injection of morphiæ sulph.

October 15. Did not sleep the night before. Stomach less irritable. Can retain the stomachic medicines. Has taken also small quantity milk and lime-water. Is very delirious; can with difficulty be restrained; has hallucinations, and exhibits all the cowardice of a victim of delirium tremens. Discontinued the above mixtures, and ordered the following instead:

℞ Etheris chlorici..... ʒ i.
Glycerinæ..... ʒ ij.
Aquæ camphoræ, q. s. ad ℥ ij.

M. S.: A teaspoonful every two hours. Also:

℞ Potassii brom..... ʒ iv.
Glycerinæ..... ʒ ij.
Aquæ, q s. ad ℥ ij.

M. Sig.: A teaspoonful in alternation with other medicine.

Gave at night:

℞ Ext. piscidiæ erythrinæ, fl. (P., D. & Co.'s) .... ʒ ij.
Tinct. ol. menth. pip..... ....gtt. x.
Glycerinæ, q. s. ad ʒ ss.
M. Sig.: Two teaspoonfuls. Repeat in two or three hours if necessary.

October 16. Stomach improved, retained all medicines. Otherwise unimproved. Slept but little. Discontinued chloric ether mixture. Gave the bromide mixture. Prescribed the following for night:

℞ Ext. piscidiæ erythrinæ, fl. (P., D. & Co.'s)..... ʒ ij.
Glycerinæ .... ʒ i.
M. Sig.: Two teaspoonfuls. Repeat in two or three hours if necessary.

October 17. Slept well last night. Took but one dose of the dogwood. Is much improved. Take the bromide mixture every three hours, and at night take one drachm of the Jamaica Dogwood.

October 18. Obtained a good sleep last night. Still improving. Discontinued bromides. Recommended acid phosphates. Did not order the dogwood for to night, thought he would sleep without it.

October 19. Had a good sleep last night. Convalescing rapidly. I continued the acid phosphates for a couple of weeks, when I put him on citrate of iron and quinine. This he continued for a few weeks. In the meantime I gave him a good lecture on the evil effects of intemperance, which I hope he has profited by; for although I see him occasionally, I have not been called upon to see him, nor has he called to see me professionally up to this date, January 29, 1883.

In this case the Jamaica Dogwood certainly acted like a charm. On the first administration of it, it seemed to meet the indication required, when other means failed.

On the second occasion, August 14th, or 15th, by allaying all nervous irritation, and producing a calm and refreshing sleep, it evidently cut off or aborted what promised to be a severe attack of acute delirium tremens.

On the third occasion, October 18th, there is no doubt that, could the stomach have tolerated it at first, the attack would have been of shorter duration than it was. As it was, there was no improvement until the stomach could retain it, and he got a sufficient quantity to affect the system. It will be noted that but one drachm of the Jamaica Dogwood sufficed in the first attack, while in the other two it was necessary to give one and a half drachms.

An interesting feature in the action of this remedy in this case, is, that although large doses were administered, it caused no bad after-effects. No headache, nausea, etc. The sleep seemed to be natural and refreshing. This is an important feature, and should it hold good in other cases, Jamaica Dogwood will certainly supersede opium as a hypnotic.

I had another case of insomnia from alcoholism, in which I gave the Jamaica Dogwood, but when given alone I did not get the same good results that I obtained in the case of Mr. C. The case I refer to is Mr. J. L., æt. 61. Called at dispensary first time February 2, 1882. He has been dissipating for some time back, but stopped drinking a few weeks ago. He informs me for the last seven weeks he has been unable to obtain a natural sleep without the aid of stimulants, either in the form of malt or spirituous liquors. I prescribed the following:

℞ Fl. ext. piscidiæ erythrinæ (P., D. & Co.)..... . ..... ʒ j.
Sig.: One-half teaspoonful.

If it does not have effect in two hours take a teaspoonful. Repeat this dose every two hours until three doses are taken. Advised him to discard the stimulants he usually takes at night to procure sleep.

Feb. 3. Took Jamaica Dogwood as directed, but it had no effect whatever. Gave the following:

℞ Chloral hydratis. ... .
Tinct. [illegible] ... . ʒ iv.
Glycerinæ .... ʒ ss
Aquæ, q. s., ad. ʒ iv.
M. Sig.: Two teaspoonfuls every two hours.

Feb. 5. This also failed as a hypnotic. Prescribed the following:

℞ Ext. piscidiæ erythrinæ, fl. (P., D. & Co.'s)..... ʒj.
Potassii bromidi:..... .....
Chloral hydratis..... .....ȝȝ ʒjv.
Glycerinæ..... ..... ʒss.
Aquæ, q. s., ad. ʒiv.

M. Sig.: Two teaspoonfuls every two hours.

Cautioned patient, as before, against taking any stimulants.

Feb. 6. Feels happy. Had a good night's rest after taking three doses of the medicine. Commenced at 8 o'clock, and soon after 12 P. M. fell asleep and did not awake until 9 A. M.

Jamaica Dogwood in Nervous Hyperæsthesia.

Report 59.*—March 3d, 1882, I was sent for to see Mrs. Q. She was a stranger to me. She was about 50 years of age; mother of one child 14 years of age, strongly marked nervo-bilious temperament. I learned from her husband that she could not take any of the preparations of opium. Her pulse was very frequent; scarcely perceptible at the wrist. She is wild and unmanageable, and indeed her every appearance indicated either death or a lunatic asylum. Had she been tolerant of morphine I should have given her a full dose of quinine combined with a liberal dose of morphia. As it was I determined to remain with her until the next day and rely solely on the Jamaica Dogwood. At four o'clock P. M. I succeeded in giving her 1½ drachm of the fluid extract. In a half hour she was more quiet, pulse fuller and slower, surface not so cold and she more rational. At 5:30 P. M. I gave another drachm. Improvement was gradual and at 7:30 P. M. I gave one and one half drachms more. At 8 P. M., she fell asleep and slept until 8 o'clock the next morning. She awoke free from pain and quite rational. At 9 A. M. she had a full evacuation from the bowels. I prescribed at bedtime next night one and a half drachm of the fluid extract Jamaica Dogwood, and, if necessary, her bowels to be kept open with a teaspoonful of Carlsbad salts in a glassful of cold water to be drunk before breakfast every morning. She had no further trouble.

On the seventh day of May I was again called to see Mrs. Q. I found her threatened with another attack similar to that above noted. I gave her one and a half drachm of the fluid extract at bedtime. She went to sleep in half an hour and passed a pleasant night and awoke next morning entirely relieved. She has removed from my county and so far as I know she has had no return since.

Report 60.†—Oct. 2d, 1883, Mrs. M. G., æt. 44, multipara, married at 14 years of age, and before her menses were established. Has had no child for four or five years past, during which period menses have been somewhat irregular. At this date is confined to her bed; thinks she could not sit up at all; says she has heart disease, and complains of neuralgia; pulse small, hard, quick (about 100), and somewhat irregular. Temperature slightly elevated; tongue, red at tip and edges, dorsum brownish and rather dry. She cannot suffer the least pressure to be made on any part of the body; has no desire for food though she eats some. Flesh soft, flabby, pale. Has sudden fainting, requiring stimulants and friction. Fears death may occur during the syncope. Has tenderness in the region of the uterus and ovaries. I had just received a small supply of fluid extract *Piscidia Erythrina* (P., D. & Co.), and thought that as all other treatment had failed, this would be a good case to test it in. Prescribed fluid extract *Piscidia Erythrina* ʒ j. in syrup at bed time. This to be repeated every 4 hours until quietude and sleep ensue. Two doses only were given that night. During the day:

℞ Potass. bromidi... ..... grs. iij.
Aquæ, q. s.

M. S.: Take every three or four hours. Give cathartics when needed. Also:

℞ Bis. subnit... ..... grs. v.
Lactated pepsin ..... grs. ij.

M. Sig.: Take after meals, however slight.

Oct. 5. Second visit. Patient more quiet. Had slept pretty well nights. Complained less of pain. Appetite improved. Tongue nearly normal in appearance; pulse better; no fainting; cheerful and thinks she could get up. Bowels constipated, for which ordered cathartics, and continued treatment as before except bismuth and lactated pepsin, as there was no more complaint about the stomach. Oct. 7. Patient's husband called at

* Alban S. Payne, M. D., in the Therapeutic Gazette, 1883, p. 60.
† H. K. Wells, M. D., in the Therapeutic Gazette, 1883, p. 501.

my office and said patient was doing well. Two or three weeks afterwards saw Mr. G. again. Said his wife was doing some housework and getting along well.

Report 61.*—On January 9, 1886, I was called in haste to the bedside of Mrs. S., aged about 30 years, a tall brunette; married for four years, but has had no children. She has been subject to attacks of local congestion, oftenest in the uterus or ovaries, occasionally in lungs or stomach and bowels. She had complained all day of pain in the muscles of the body and limbs, and very frequent, severe pains in the head; but she refused to have me called until about eight o'clock in the evening, when she became wildly delirious. I found the patient in bed, maniacal, with staring eyes, with violent spasmodic contraction of the flexor muscles of the hands and feet, constantly begging for water, drinking all she could get, and yet with no relief. The pulse was regular, but rather full, about eighty beats to the minute, the temperature normal, as nearly as I could judge, as I could not keep her quiet long enough to use the thermometer. The spasms became constantly stronger, until they extended to the spinal muscles, producing the most violent opisthotonos I ever witnessed. At ten o'clock the tonic spasms were so violent that she stood upon the top of her head and her feet in bed in a perfect semi-circle, requiring four strong men to hold her and prevent her injuring herself. These spasms succeeded one another in rapid succession, with only a moment's interval, accompanied with gnashing of the teeth, and at times frothing at the mouth, and when given water or medicine from a spoon she would snap the spoon or clutch it between the teeth, and at times the jaws were firmly set in tetanus.

I had watched the history of *Piscidia Erythrina* since its first introduction, and from its action upon the cerebro-spinal nervous system and its anodyne effects, I decided to give it a trial, and sent to the druggist for two ounces. I gave 40 drops at 10 o'clock P. M. and in fifteen minutes was rejoiced to see its modifying effect upon the spinal centres and, in fact, upon the whole muscular system, the spasms became much less frequent and of shorter duration. I repeated the dose in an hour, with increased and marked improvement, and at midnight gave the third dose, which began to show its irritating effect upon the stomach; but, in half an hour after the third dose, had the satisfaction of seeing my patient drop into a quiet sleep for a few minutes, and awake without any spasm. I left direction if the spasm returned in any degree to repeat the dose, but none was required until the next day, when they returned at about 2 o'clock P. M., when she was given 40 drops of *piscidia*, which produced such violent irritation of the stomach that she could not retain it. I was called at 7 P. M. to find her in violent spasms again, but not so frequent. I found it impossible to administer the *piscidia* by the mouth, and gave by enema one teaspoonful of the fluid extract and the same amount of hot water, repeating the dose every hour for three doses as before, with the same effect in arresting the spasmodic action and relieving all pain. The next day I directed one teaspoonful by enema at 2 and 4 o'clock P. M. This treatment was all that was required, and my patient was perfectly cured and was attending to light household duties.

Jamaica Dogwood in a Case of St. Vitus' Dance.

Report 62.†—Since Jamaica Dogwood has come to be one of my favorite medicines I wish to give you a brief history of my experience with the drug in a case of St. Vitus-dance, as follows: On the night of December 8th, 1883, I was called to see Miss Maggie Thompson, of this city, age 11 years, of a nervo-bilious temperament. The affection proved to be a case of St. Vitus' dance. My diagnosis being made, I freely inquired into the history. I learned that she had been gradually getting worse for several months; that during the spring and summer she was first noticed as "not being just right," but the parents, not being familiar with the affection, thought the child had contracted a habit of making the peculiar movements, and for a time reprimanded her for it. After the middle of October, however, they became somewhat alarmed, and concluded to consult a physician, who declared it a case of St. Vitus' dance, and commenced treatment. But as the case proved somewhat tedious, the parents became further alarmed and changed doctors, after a three weeks' trial, and continued to change until three had been called in. On December 8th, when I was called, the case had grown so bad that it was found almost impossible to keep the child upon the bed, even with the assistance of two or three at the bedside, there being such a violent involuntary motion of the entire body. At this time she had been confined to her bed about six weeks. Seeing there had been no benefit obtained from the former

* S. A. Newhall, M. D., of Kansas, in the Therapeutic Gazette, 1886, p. 147.
† C. H. Woodcox, M.D., of Coldwater, Mich., in the Therapeutic Gazette, 1884, p. 56.

treatments conducted by reliable physicians, I was somewhat puzzled to know what to do, but after making a thorough examination and finding a temperature at 98.8° as best I could get, in axilla, and pulse varying from 80 to 84, with coated tongue and foul breath, I determined "to work upon the secretions" as though there had never been any former treatment. There being a loaded condition of the urine and a dormant state of bowels, I prescribed:

℞ Potass. acetatis ..... ʒ iij.
Aquæ ..... ʒ iv.

Of which I gave a teaspoonful every two hours until the urine was cleared up. At the same time I gave an "alterative powder" composed of:

℞ Leptandrin ..... grs. xv.
Podophyllin ..... grs. vij.
Capsici ..... grs. ij.

Mix and make 12 powders. Take one every four hours.

To keep my patient quiet, I gave a mixture of:

℞ Chloral hydratis ..... ʒ ij.
Potass. bromidi ..... ʒ ij.
Elix. simplic ..... ʒ ix.

Of which take a teaspoonful.

This treatment I continued for one week, when I found my patient's system in very good condition. I then prescribed:

℞ Ferri pyrophos. ..... ʒ i.
Elix. simplic ..... ʒ ij.

One teaspoonful before meals three times a day. Also:

℞ Liq. potassii arsenitis ..... ʒ i.
Elix. simplic ..... ʒ ij.

One teaspoonful one hour after meals.

Continued chloral and bromide as above. I kept my patient upon this treatment for twelve days without very much improvement. At this point I began to look around a little, for I knew well that I must begin to skirmish. After looking over the many remedies indicated in this case, I concluded to try the Jamaica Dogwood. This, to my great amazement, I found to give prompt relief. My patient, when I commenced its use, was still in bed, and the symptoms not much better. Involuntary motion was almost constant. I prescribed ʒ ss of the Jamaica Dogwood three times a day after meals, the last dose at bed-time. I at once omitted the hydrate chloral and bromide. The drug was commenced Dec. 28, 1883. I called to see my patient on the 30th (forty-eight hours later), and to my greatest satisfaction I found her quietly lying in bed, and to all appearance resting without the least symptom of narcotism present. I unhesitatingly followed up with the Jamaica Dogwood. At the end of eight days from the commencing of medicine, my patient could stand upon her feet, dress herself without the assistance of any one, could walk across the floor, and had begun to feed herself. Twelve days later I visited her and pronounced her cured. Discontinued Jamaica Dogwood and put her upon a mild preparation of syrup of phosphates as a restorative.

Jamaica Dogwood in Headache.

Report 63.*—Having some months since received a sample of Jamaica Dogwood, I put it to severe test in a case of pure nervous headache in my own family—my wife, who inherited this trouble from her father. This headache has never observed any regularity in her case; at times weeks and months would intervene between the attacks, at others only a few days. At times she has been able to get only temporary relief from the different anodynes. She had worn out the good effects of hyoscyamus, valerian, chloral hydrate, potassium bromide, and all the long line of stomachic regulators, tonics, etc. She began with Jamaica Dogwood, without any hope or faith, and only at my urgent solicitation. Since the first trial I have to report "no more headache." Occasionally now she feels "just as though her headache was going to return," when a teaspoonful of fluid extract Jamaica Dogwood (P., D. & Co.'s) settles the business effectually and at once.

Jamaica Dogwood in Obstetrics.

Report 64.†—Case 1. I was called in consultation to see a woman in labor. She had been having strong pains for two days and nights, but no progress was made;

* Elmore Palmer, M. D., of Boulder, Col., in the Therapeutic Gazette, 1883, p. 502.
† Dr. J. A. Mays, in the American Practitioner and News (Med. Age, 1886, pp. 304, 305).

the head of the child could not be reached by the forceps, so the physician in attendance told me. On examination I found it so, and also discovered that the pains were *not* bearing-down pains; I made it out to be a case of false labor, and so informed the physician. I advised one teaspoonful of fluid extract Jamaica Dogwood at once, and to be repeated in half the quantity every two hours, if needed. The first dose stopped all pain; she went to sleep, and slept several hours, then got up and attended to her household duties, having no new pains for a week, when she went into true labor and was promptly delivered.

Case 2. Yesterday afternoon I was called to a case of threatened miscarriage, the patient being four and a half months pregnant. There was no hæmorrhage, but very strong and frequent bearing-down pains. I prescribed a half teaspoonful of fluid extract Jamaica Dogwood every hour till she was relieved. The patient took two doses (one drachm in all), when the pain disappeared, after which she went to sleep, and, as she told me this morning, had slept soundly all night, waking to feel quite well.

These two cases will point out the value of the drug in an important class of affections. I have used it during protracted labor in many cases as a means of giving the patient a more perfect rest during the intervals between pains, thereby sustaining the strength, and I have never found it to have any bad effect in any way. It will not arrest the true labor pains.

Report 65.*—We have found the fluid extract of Jamaica Dogwood (*Piscidia Erythrina*) an excellent substitute for either opium or chloral in controlling the nervous irritability dependent upon the preliminary contractions of the uterus in labor. It should be given in twenty to thirty drop doses, repeated hourly.

Report 66.†—Lessona reports upwards of 100 cases in which he administered *Piscidia Erythrina* either in threatening abortion or during the first stage of labor. Prompt relief of excessive pain was experienced in 71 per cent. of the cases. For the sake of comparison, opium was given to 96 other patients, with a similar result in 80 per cent. of the number.

Jamaica Dogwood in Uterine Pains.

Report 67.‡—Miss W., æt. 16 years, was attacked Saturday night, Oct. 2, 1880, with severe colicky pains in the womb. A hot hop poultice was applied, but no relief obtained, and the pains extended to her limbs. Headache also supervened and painful "cramps" until about 2 A. M. of the next day, when the young lady was taken with a spasm. The family treated her with household remedies till 9 or 10 o'clock A. M., when a messenger was dispatched for me with the information that the young lady was dying. On arriving at the house I found the patient in intense agony, severe pain in head and back, and colicky pains all through abdomen. The spasmodic contractions of the arms and limbs were the worst I ever saw. I had a bottle of fluid extract Jamaica Dogwood in my pocket, and it struck me at once to test the effect of the drug in this case. I administered one half drachm (℥ss), diluted, and in ten minutes I saw it was going to have a good effect. I then gave ℥ss more, and in 20 minutes longer relaxation had taken place, and the pains had nearly all gone. I then gave ℥ss more, and in twenty minutes all spasmodic difficulties and pains had ceased, and my patient was sleeping a sound and sweet sleep, from which she awoke some eight hours later feeling quite well, considering the severe attack. She came to my office yesterday (October 10) looking as fresh as a peach, and stating that she had not had any pains since I visited her on the 4th, and that the flow had come on next day quite easily without any pain. I have used Jamaica Dogwood in several other cases during the past week, in which there was severe neuralgia, with very satisfactory results.

Jamaica Dogwood in Coughs, Bronchitis, Bronchial Irritation, etc.

Report 68.§—A gentleman came into my office and asked me to prescribe an anodyne for him, as he was suffering pain from a recent fracture of the radius, stating that opiates did not agree with him. I ordered fluid extract *Piscidia Erythrina* in half drachm doses. In two days he returned and asked me if I knew the remedy was good for a cough. He stated he had been for several weeks suffering with a troublesome dry cough and great dyspnœa, and he found on taking my prescription for pain, which it perfectly relieved, also great relief to his cough, which he stated, had become loose and expec-

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* Chicago Medical Review, Dec. 5, 1880.
† Gazetta delle cliniche, Feb., 1885.
‡ W. F. Sharrer, M. D., of Indiana, in the Therapeutic Gazette, 1880, p. 321.
§ F. E. Daniel, M. D., of Mississippi, in the Therapeutic Gazette, 1880, p. 71.

toration easy, and that the medicine produced a feeling of warmth and comfort in the bronchi. He had at one time been a practicing physician, and he compared the effects of the medicine on the lungs and bronchi to that of cubeb; he asked the name of the drug, and requested the gentleman in charge of my dispensary to put up double the quantity I had previously prescribed. So, in addition to its admirable properties as an anodyne and hypnotic, it seems to be a stimulating expectorant; and I have since that time been in the habit of prescribing it as an ingredient in cough mixtures, to which I find it a valuable addition:

Report 69.*—I have used Jamaica Dogwood successfully in severe bronchial irritation. In one case, that of a young girl, a patient at the dispensary, first gave the following prescription without benefit:

℞ Ext. hyoscyami, fl. ..... ʒ j.
Tinct. opii camph. ..... ʒ ij.
Syr. ipecac ..... ʒ iij.
Glycerinæ ..... ʒ ij.
Syr. tolut. .....q. s., ad ʒ iv.
M. Sig.: A teaspoonful every two hours.

After taking this awhile, with no benefit, as before remarked, gave the following:

℞ Ext. hyoscyami, fl ..... ʒ i.
Ext. piscidiæ erythrinæ, fl. (P., D. & Co.) ..... ʒ ijss.
Syr. ipecac ..... ʒ iij.
Glycerinæ ..... ʒ ij.
Syr. tolut. .....q. s., ad. ʒ iv.
M. Sig.: A teaspoonful every two hours.

This seemed to allay the irritation and incessant coughing in a short time. Have also used it in some cases of chronic bronchitis with the happiest result. Generally prescribe it as follows:

℞ Ext. yerbæ santa, fl. ..... ʒ j.
Ext. piscidiæ eryth, fl. ..... ʒ vj.
Tinct. ol. anisi ..... ʒ ij.
Glycerinæ ..... ʒ j.
M. Sig.: A teaspoonful three or four times a day.

Jamaica Dogwood in Asthma.

Report 70.†—We have employed Jamaica Dogwood in three cases of asthma, one a very severe one, with whom all other remedies had failed; was put upon five minims t. i. d., and subsequently ten minims. He improved remarkably fast, so that he did not have to put his head out of the window to get his breath, as he was wont to do before. He was ultimately cured. The other cases were less severe, but improved nicely under its use. We have employed this drug as a hypnotic, but without the success that others have had, and with very little benefit.

Jamaica Dogwood in Whooping-Cough.

Report 71.‡—Cases 1 and 2.—My two children, æt. 6 and 8 years, have had whooping-cough for about eight weeks. The little girl's case has been unusually severe, and complicated with catarrhal pneumonia, gastric irritation, indigestion, constipation, prostration and irritability of the nervous system. The little boy's case has been much milder and uncomplicated, but at times the spasms of cough have been severe enough to produce vomiting. I gave Jamaica Dogwood a good, honest trial, commencing with twelve drops in syrup tolu every two or three hours, increasing the dose steadily to thirty-five and forty drops. Using glycerin instead of tolu, at first, I was hopeful and encouraged to continue in its use, believing it did in some measure control the violence of the cough. But more experience and observation convinced me that it would not do to depend on it, even in the extra large doses that I used. That the medicine was genuine I have no doubt, as it was from the reliable firm of Parke, Davis & Co.

Report 72.§—There is no disease in which the treatment of the present day is

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* L. B. Firth, M. D., of the Brooklyn Eclectic Dispensary, in the Therapeutic Gazette, 1883, p. 101.
† Clint. B. Herrick, M.D., Resident Physician and Surgeon of Albany Hospital, in the Therapeutic Gazette, 1882, p. 136.
‡ J. F. Fitzsimmons, M.D., of Ohio, in the Therapeutic Gazette, 1881, p. 89.
§ W. R. Alexander, M.D., of West Virginia, in the Therapeutic Gazette, 1880, p. 354.

more unsatisfactory than whooping cough. In fact, there is but a single medicine which the profession is agreed that there is reliable efficacy in. That medicine is belladonna, which is both dangerous in its administration, and not always satisfactory in its results; at least, such has been my experience. Pertussis being epidemic last fall, as well as at the present time in this city and surrounding country, I was led to make some experiments in the treatment of it with the fluid extract Jamaica Dogwood, my attention having been arrested by the prompt and peculiar effect of the dogwood in coughs and bronchial troubles generally, in which I had many opportunities of prescribing it. The effect in whooping cough was quite satisfactory, and it proved quite a specific in a number of cases. I now order it for a patient with as much confidence in its prompt results as I do quinine in malarial affections. It seems to control the reflex irritation of the branches of the pneumogastric nerves, which produces the spasms; and it cannot be excelled in pulmonary complications. Of course, where it is necessary, the little patient's strength must be sustained by stimulants nourishment, etc. I give it to children at all ages and in any stage of the fever. The intestinal catarrh, the conclusive and the final catarrhal stages were all decidedly benefited, the spasmodic effects being in many cases aborted. It can be administered in any expectorant syrup or mixture.

Jamaica Dogwood in Bowel Pains.

Report 73 *.—Mr. C. D., a laboring man, somewhat addicted to the use of liquor, was suffering severe pain in the bowels, apparently due to indiscretion in regard to food and drinks. One dose gave prompt relief, but it was found necessary to repeat the dose every two hours until the bowels could be relieved by a cathartic. This was a case in which the preparations of opium would have been eminently serviceable were it not for their peculiar action on the bowels, impeding rather than expediting the removal of irritating matters.

Jamaica Dogwood in Cholera Morbus.

Report 74†.—This morning Mr. B., a gunsmith, on his way from his residence to his shop, was taken suddenly ill with griping pains in the abdomen. He hastened to my office, was unable to get farther than the doorway when he fell prostrate upon the steps. Before I had time to inquire into the cause, emesis began, which with the other symptoms caused me to diagnose cholera morbus. Morphine had always been my preference in this disease as the most prompt and efficient remedy, but as I had none at hand I administered a drachm of fluid extract Jamaica Dogwood, from a sample vial which had been presented me. I gave this dose immediately after the first emesis. The relief was prompt and decided, the only remnant of the trouble being some slight abdominal uneasiness. In twenty minutes I gave another fluid drachm. There was now no more symptoms of the disease, and in half an hour after the second dose he left the office, feeling well. The recovery was attended by none of the disagreeable after-effects attending the use of morphine. This fact, together with the prompt relief given and the fact that the drug was given without any of the hesitation which one feels in giving decided doses of morphia, lest untoward results occur, has made me regard Jamaica Dogwood as a decidedly valuable addition to our list of remedies.

Jamaica Dogwood in Heart Affections.

Report 75‡.—Case 1.—Mrs. D. H., age 42, having suffered for a number of years with hypertrophy of the heart and insufficiency of the valves, left here for the hospital at Indianapolis, where the above diagnosis was made certain. She stayed there over a year, but as her health did not improve under treatment, and as there was danger that she might die there any day, her mother brought her here, as she said, "to die at least at home."

After her arrival here I was called to see her, and no special skill was necessary to confirm the above diagnosis. Her case was very precarious, and rendered even dangerous through the long journey, on the cars and the yet more shaking travel in a country wagon from the depot to this place. The *status præsens* was: The patient, formerly a strong, tall woman, was 42 or 43 years of age, much emaciated; her pulse quick, weak, and at times doubly beating, heart irregular and accompanied with the characteristic rubbing sounds of the disease, which could be heard nearly all over the chest; her diges-

* W. H. Rouse, M.D., in the Therapeutic Gazette, 1880, p. 291.
† E. S. Richardson, M.D., of Michigan, in the Therapeutic Gazette, 1880, p. 291.
‡ Jos. Ziteke, M.D., of Illinois, in the Therapeutic Gazette, 1884, p. 179.

tion was entirely impaired, and vomiting followed after each meal; her bowels were at times constipated, and again would move with dangerous looseness and frequency; the liver was enlarged and painful to touch; her urine contained large trace of albumen. Temperature seldom over 100° F. A slight œdema could be detected on both the lower extremities. A careful following of the blood vessels on the arm and leg revealed in some degree atheromatous degeneration. Her pains in the lower extremities and in the upper part of the sternal region were excruciating, and her cries could be heard in the neighboring rooms.

She had brought home with her from the hospital some tinct. of digitalis, a solution of bromide of potass. and extr. belladonna and also a solution of subnitr. of bismuth and pepsin. However, she complained that the effect of all those medicines on her was nearly *nil*. Having made a careful examination and told her my diagnosis, which agreed with that of the hospital physician, I also told her that it was impossible for any physician to cure her disease, and that all that could be done would have no other effect than to make her more comfortable and diminish her sufferings.

I reduced at once the dose of tinct. digit. from 25 drops to 12 drops, *ter in die*, and stopped entirely the bromide of potassium and the belladonna, for which I substituted fl. extr. Jamaica Dogwood. As she was very weak and I did not dare to subject her to any therapeutical experiments, I gave her at first 10 drops of the drug, and half an hour later, when I was sure there was no idiosyncrasy against the drug, 10 drops more. Soon a calm sleep followed and lasted till the morning, when the Jamaica Dogwood was given in ten-drop doses, three times a day, to ensure freedom from pain.

As the patient's digestion was quite disturbed, I gave her, 3 to 4 times a day, ½ to 1 teaspoonful of sang. bovin. exsic., which was well retained by the stomach. This was soon increased in quantity and was given in lieu of other nourishment. These two remedies, with the tincture of digitalis, were given to her in slowly increasing doses, from July 15 till December 15, 1883. She improved considerably and towards the end of September was even able to visit her sister, living about two miles from our village. Towards the end of December, however, her state became suddenly worse. Jamaica Dogwood lost all its beneficial influence on her, even in teaspoonful doses; the œdema of the lower extremities was increased and a copious hydrops pericardii also developed. The dimensions of her chest became twice the normal, and the beats of the heart could be seen by every bystander, moving the sternum with singular force and accompanied by a rattling and whistling noise. The temperature did not rise at all, but her pulse grew quick and weak, usually 140 during the day and 145 to 150 during the night. Digitalis had lost its power. The stomach also grew worse, although not so bad as in the beginning. Her pain finally became intolerable and she begged of me for morphine. I shall never forget her own words at that time. "Let me," she said, "have some morphine so that I may get some rest. The doctors in the hospital told me that the large quantities of opium I took, before I went there, had made my disease incurable; let the same drug now kill me." I gave her one-fifth of a grain every hour. Her pains grew less and less and she lay quiet in an entirely conscious state. The next night, but one, she asked to be turned a little on the right side, and whilst her friends were raising her up, a large quantity of fluid, about a gallon, escaped from her mouth and she died. Some part of the fluid caught in a basin, was examined and was found to contain a large quantity of albumen, and many fibrous strings of pale red color. I have described this case in some detail because of its importance. It illustrates the beneficial effects of digitalis and Jamaica Dogwood administered in combination in such a dangerous and, from the beginning, hopeless case.

Jamaica Dogwood in Gastro-enteralgia.

Report 76.*—Since our return from a five months' visit, during last fall and winter, in Southern California, where my wife nearly lost her life from typhoid fever, she has been more or less constantly troubled with a gastro-enteralgia, which dieting would not prevent, and which opiates would not temporarily relieve. In addition, the opiates so constipated the bowels and impaired appetite (always deficient), that she would suffer long rather than use morphia. Finally I began giving her, three times a day, a teaspoonful of fluid extract Jamaica Dogwood, when to our great surprise and joy, in two days she was entirely relieved, appetite improved, and her health and comfort were better than for months.

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*S. A. Butterfield, M. D., Indianapolis, Ind., in the Therapeutic Gazette, 1881, p. 89.

Jamaica Dogwood in Gonorrhœa.

Report 77 *—This article makes a very good injection in cases of gonorrhœa, as follows:

℞ Ext. piscidiæ erythrinæ, fl. ..... ℥ij.
Aquæ destil. ..... ad ℥iv.

M. Sig.: Use as injection

I have never prescribed it in this way, but I have in on good authority that it does well in such cases, and am quite prepared to admit the truth of these reports.

Application of Jamaica Dogwood to Burns, Scalds, Etc.

Report 78.†—I have discovered in Jamaica Dogwood an excellent application for burns from hot steam or boiling water. My mode of application is to saturate a cloth with the fluid extract and bind it loosely on the burnt parts. Keep moist by frequent applications. The "fire" will be found to be out in a few hours. Old linen makes the best bandages.

Jamaica Dogwood in Incarcerated Hernia.

Report 79.‡—In the March number of the Gazette are many reports in regard to the merits of Jamaica Dogwood as an anodyne, but none of these reports mentioned the effect of this drug in regard to incarcerated hernia. Therefore allow me to increase the list of the happy results of *Piscidia Erythrina* as an anodyne. On the 17th of February I was called early in the morning to see I. M., a strong young man of about 26 years. Found him suffering the most intense pains caused by incarcerated hernia inguinalis. Failing to make the reposition per manum and leaning him head downward over the bed, I ordered fluid extract Jamaica Dogwood, a small teaspoonful. About half an hour afterwards the prolapsed intestines fell back with a kind of snap, and after a few hours sleep, accompanied with profuse sweat, the patient got up and commenced to work as shoemaker and said he felt as well as ever.

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* Jno. Fearn, M. D., in the California Medical Journal, April, 1888, p. 139.
† S. Shepherd, M. D., of Brooklyn, N. Y., in the Therapeutic Gazette, 1884, p. 461.
‡ Dr. F. Fermier, of Weisburg, in the Therapeutic Gazette, May, 1882, p. 168.

CEDRON SEED (Simaba Cedron, Planchon)

Part Employed.—The seed.

Natural Order.—Simarubeæ

Habitat.—South America.

Properties—Reputed of value as a remedy for bites of insects and serpents; for hydrophobia; and of service in intermittent fever, spasm of the bowels and stomach, dyspeptic affections, cholera morbus, colic, neuralgia of the face, and gout.

Pharmaceutical Preparation.—Fluid extract of the seed, dose, from 1 to 8 minims (0.06 to 0.5 C. c.). For serpent bites it is recommended to administer the fluid extract in 6-drop doses, and to dress the bite with the fluid extract. It is rarely necessary to repeat the dose.

BOTANICAL DESCRIPTION.*

"The Cedron seems to be confined to the republic of New Granada, ranging from about the 5th to the 10th degree of north latitude, and from 75° to 80° of west longitude. It is generally met with on the outskirts of woods, on the banks of rivers, and on the sea-shore, but it is never found under other trees, and although it occasionally forms small groves, yet it never constitutes extensive woods by itself, and must always be considered as a rare plant. The tree attains a height of about fifteen feet; the stem, when about twelve feet high, produces a terminal panicle which prevents it from prolonging itself; but, instead, side branches appear, which also in their turn send forth terminal flowers and side branches. The effect of this mode of growth is, that the tree looks as if cut, something like *Salix capitata*, or perhaps more like a full-grown *Cycas circinalis*, and may therefore be called a "magnified umbella." In diameter the stem seldom exceeds six inches. The impari pinnated leaves are glabrous, from two to three feet long, and have generally more than twenty narrow elliptical leaflets. The panicle (not raceme) is very often from three to three and a-half feet long, and bears flowers about an inch in diameter, the corollas of which are externally covered with a brownish hair; internally they are glabrous and of a greenish color. The stamens are ten in number, and the ovaries five, but in most cases only one of the latter is developed into a mature fruit, the rest being usually abortive. The fruit, about the size of a swan's egg, has the appearance of an unripe peach, being covered with a short hair. Each of these fruits (drupes) contains one seed (the Cedron of commerce), easily separated into two large cotyledons, which look very much like blanched almonds, but are larger and plano-convex."

THE CHEMISTRY OF CEDRON SEED.

Lewy, in 1851, had discovered a bitter principle in the seeds, which he called cedrine; and Tanret, according to Dr. Dujardin-Beaumetz, has lately discovered another alkaloid of very great activity, the dose of which is a milligram, and which has been named cedromine. Whether these two substances are identical or not remains to be ascertained. Cedrine has been found to be poisonous in large doses.†

The cedron seed is sole, voluminous, dangling, covered with a membranous tegument, while the cotyledons are very large, fleshy, and white in the recent state. It is these isolated cotyledons which constitute the article of commerce, and which are from three to four centimetres long, fifteen to twenty millimetres broad, of an elliptic form, curved a little on one side, convex externally, flat or very slightly concave on the internal surface, with a small seam at the top. By drying they have turned into a yellow color, often rather dirty and blackish looking externally, and lighter yellow internally. Without any particular odor, they are possessed of a very bitter taste, reminding one of quassia, and contain through their whole substance a large amount of starch, from thirty-

* Walper's "Annales Botanices Systematicæ," vol. i, 163.
Seeman's "Botany of the Voyage of H. M. S. *Herald*." p. 95.
† La Ruche Phar., Jan., 1880 (Therapeutic Gazette, 1880, p. 244).

three to thirty-six per cent., —eight per cent. of a solid fat, scarcely soluble in alcohol thirty two to thirty-five per cent. of albuminous matter, about ten per cent. of a soft resin, eight to ten per cent. gum, and two to three per cent. of a crystallizable, very bitter substance, which has been named cedrin by Levy, who discovered it as long ago as 1851.*

MEDICINAL PROPERTIES.

Dr. Sappray used this plant in 1828. In Oaxaca, Mexico, it has been long employed in fevers, intermittent and remittent, which have resisted quinine. In typhoid cases it acts as a tonic, increasing the strength of the pulse and reducing its frequency. In two cases in which it was employed there were notable singularities, but whether caused by the use of the medicine or mere co-incidences was not definitely determined. One was an intense pharyngitis, with much mucous and glutinous secretion, and the other a drastic catharsis. These were the first cases of the use of the simaba, but further experience than this is required to settle the properties of this or any other new medicine. The drug is also successful as a prophylactic against the poisonous effects of the bites and stings of animals and insects.†

The general reputation for curing poisoned animals by the seeds of this plant has been known only a few years. It was introduced from Oaxaca, by a traveler, and though used empirically also in intermittent fevers, and even when quinine and arsenic failed to cure it has become a standard remedy. Its well-known uses in poisoned animals have given grounds for further examinations, chemically, and for continued experiments. It is also used in diarrhœa and colic. The almond seeds are so bitter that pills are best suited to administration, being made from the dried extract, 100 grains of the almond producing 30 to 33 grains of the aqueous extract, and a little more than half the quantity of the alcoholic extract.‡

Cedron seeds are prescribed by the physicians of New Granada as a fever medicine, and are also used internally and externally as an antidote for the bite of poisonous animals. The natives of New Granada and Central America never venture into the forest unless supplied with a few of the seeds, which are cut into thin transverse sections, and these are applied to the wounds. Fever patients cut the seeds into pieces the size of a pea, which they swallow gradually. Hager attributes their efficacy to quassiin, the bitter principle of quassia, a large percentage of which he supposes is contained in them. The seeds of other species, like *Simaba ferruginea*, St. Hil. (*Picrodendron calunga*, Martius), are probably collected in Brazil as "cedron."§

Cedron as a Substitute for Quinine.—Admiral Lapellin draws attention to a bean which is used by the inhabitants of Central America in the treatment of the cold fever, and which is said to be a good substitute for quinine. Dr. Coignard, who obtained the remedy in Puerto Arenas, Costa Rica, obtained favorable results with it, and Drs. St. Père and Quesnel found it even more powerful than sulphate of quinine. The bean is cut into bits as large as a pea, several of which are given in the interval between the paroxysms. This almond or bean is obtained from the simaruba ferruginea. ‖

CLINICAL REPORTS OF THERAPEUTIC PROPERTIES.

Report 1.¶—One morning during an extended survey of Panama, as I was sitting in front of my tent watching the movements of a large rattlesnake about thirty feet in front of me, I saw the reptile strike with its fang a bird which had alighted on a twig, about three feet from the surface of the ground, knocking it completely over. It struck the bird a second time before I succeeded in killing the snake. It had fourteen rattles which I still preserve.

Notwithstanding the bird (a species of buzzard) had been knocked down by the force of the onslaught, it recovered strength enough to fly off about fifty yards, and peck away for a few seconds at a large bush, resembling in appearance one of our American quince trees, and then winged its way into the upper air, apparently well and not the least affected by the sting.

I called the attention of one of my camp attendants, a native of Panama, to the incident. He looked at me in astonishment and laughed at my ignorance and innocence in not knowing the antidote for the sting of venomous reptiles and insects.

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* Pharmaceutical Journal and Transactions, Feb. 7, 1885 (Therapeutic Gazette, 1885, p. 354).
† Translated for the Therapeutic Gazette, 1885, p. 71, from the El Medico Centro Americano.
‡ Translated for the Therapeutic Gazette, 1885, p. 135, from the El Medico y cirurgano Guatemala.
§ Pharm. Centralh., Nov. 20, 1879, p. 435 (Therapeutic Gazette, 1880, p. 114).
‖ Med. Chir. Rundschau, Nov., 1879.—The Medical Record (Therapeutic Gazette, 1880, p. 111).
¶ John Penn Curry, of New York, in the Therapeutic Gazette, 1880, p. 260.

"Me no caree for rattlesnake, moccasin, copperhead, lizard, or tarantula bite no more than a fly bite." The 'cedron bean' kill the poison in five minutes."

To prove his assertion which we all doubted, that night he trapped a large sized rattlesnake and the next morning in the presence of the whole camp allowed it to strike its fang several times at the forefinger of his left hand before he killed it.

The punctures were about the size of the head of a darning needle. A deep purple inflammation rapidly set in and began to extend over the hand like St. Anthony's fire. Some one suggested whiskey but "Tony," pulling a cedron bean from his pocket, the bean being about the size and appearance of a horse chestnut, began to nibble away at it, and with the spittle saturate the wound. Then with some scrapings of the bean and with a gill of hot water he made a tea and drank it off. Within half an hour, certainly, all perceptible external inflammation had subsided, and with the exception of a little nausea which he had experienced, not the slightest effect of the sting two hours after was perceptible. Other experiments only corroborated his statement. I carried with me a peck of the beans to San Francisco, and repeated experiments, at my suggestion, were made by Professor Lanzwert, a German chemist and physician of high standing, and always with great success.

I wrote an account of the medicinal properties of the cedron bean, which was published in the Alta, California newspaper, and copied in the London Lancet.

When the cedron bean is made into a tincture, say one-fourth of the bean to two ounces of alcohol, and taken in doses of fifteen or twenty drops twice a day, it has proved to be very efficacious in confirmed gout. In ordinary cases ten drops twice a day would be sufficient.

Again, it is asserted by the natives of Central America that not a single fatal result from hydrophobia has ever been known among them, though the whole country in the tropics seems to be overrun with dogs.

When any one is bitten by a dog, a tea made of the cedron is all that is taken. Dogs are known to eat of the bean at times the same as a cat does of wild catnip. These natives positively assert that cedron is the preventive of this usually fatal disease.

Report 2.*—The seeds of the fruit of *Simaba Cedron*, Planch., belonging to the nat. fam. Simarubaceæ, and native of New Granada, have long been used by the natives, like other bitters, as a remedy in fevers and snake bites. Dr. Coignard particularly relates that the natives along the west coast of Central America, and on the Atlantic coast also, use the cedron seeds for intermittent fever, in doses of about 0.50 gm. (8 grs.) administered during the cold stage. Dr. Dujardin-Beaumetz has recently had occasion to confirm these reports. Two cases of obstinate intermittent fever, which turned out to be unamenable to quinine, yielded to cedron seeds given in doses of a little less than 0.50 gm. Unfortunately, however, the remedy cannot always be relied on, according to him. One seed may act violently, another may be completely inert. Hence, instead of using the seeds, it would be preferable to extract the active principle.

Report 3.†—Dr. C. Bousseau states that, being called in a case of snake-poisoning in which the patient exhibited serious symptoms, he determined to try cedron nuts, the seeds of *Simaba Cedron*, having seen them highly spoken of by Dr. Saffray some years since. In order to satisfy the people present, the doctor slightly cauterized the wound with ammonia, and immediately ordered a cedron nut powdered and mixed with 50 grammes of strong white wine to be taken internally, while another nut was powdered and mixed with 10 grammes of alcohol and applied to the wound. The patient becoming delirious, it became necessary to use force in administering the remedy. He gradually improved, however, and eventually totally recovered. While not believing the remedy to be necessarily infallible, Dr. Bousseau thinks that the success met with in this case, together with its use for the same purpose in New Grenada, indicate the practical value of the cedron nut as an antidote to snake-bites, to a sufficient extent at least to warrant further investigation.

Report 4.‡—As there has been so much said and written about the incurability of hydrophobia, I should be much pleased if you would accord me some space to express my experience with a remedy for said disease.

Three years ago I was called to attend a little boy named Charlie Hoeffner, who, according to his mother's statement, was bitten by a mad dog three weeks previous to his taking sick. When I reached his bedside the boy was in fearful agony, howling and producing all sorts of indescribable sounds. After the minutest inquiries and careful examina-

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* La Ruche Pharm., Jan., 1880 (Therapeutic Gazette, 1880, p. 244).
† Journal de Medicine et de Chirurgie Practiques (Med. Age, 1889, p. 72).
‡ George Vaillant, M. D., Ph. D., 442 W. Twenty-fourth St., New York City, in the Therapeutic Gazette, 1884, p. 504,

tions, I diagnosed the case as genuine hydrophobia. Knowing I could not get this medicine (cedron) in any of the drug stores near by, I hurried home and procured a small quantity of it (about a drachm, ʒ j) and used it hypodermically and per os. In less than twenty minutes after its administration my patient became quiet, and, although watching him very closely for about five hours, there were no symptoms of recurrence of this dreadful malady. Visited him next day, found his mind clear, and having recuperated from his nervous prostration. On the third day I examined him thoroughly, and to my utter astonishment I discovered a large sore, resembling a phagadenic ulcer, discharging a tenacious dark yellow pus of a very offensive odor.

I think this purulent secretion, which was possibly produced by cedron, saved the boy. The patient recovered after a week's treatment, and has not been ailing since.

Furthermore, I should like to state that I experimented with the pus secreted from the wound of the boy mentioned. I inoculated a tremendous big tom cat with said pus, at 2 o'clock in the afternoon; he developed all the horrible symptoms of hydrophobia until he died in the terrific convulsions at 4.30 o'clock next morning. I having watched him very attentively, even to the risk of my own life.

Case 2.—While I was rusticating at Saratoga, last summer, I was summoned in consultation to the bedside of a young lady, who was bitten by a pet dog five months previously. When I entered her room she was barking and snarling in the most vicious manner at those surrounding her. My diagnosis as true hydrophobia was endorsed by the other five physicians present during the consultation. I gave directions how to use "cedron" hypodermically, as it was utterly impossible to administer it per os. She recovered the same as my first patient.

Report 5.*—Dr. Purple of New York, who extensively employed the Cedron seeds, gave from 10 to 30 grains of the seeds every four hours. He has come to the following conclusions regarding their therapeutic action:

That cedron possesses decided antiperiodic properties, and is, therefore, applicable in the treatment of periodic diseases.

That it is less likely than quinine to produce the aggregate of encephalic or neuropathic phenomena induced by overdoses.

That it may, in large doses repeated often, produce griping of the bowels, and even diarrhœa, but that these conditions are easily controlled by appropriate medicaments.

That as a remedy in intermittent fever it possesses properties in many respects equal to quinine, and in most cases is equally adapted to the treatment of this disease.

That in the treatment of yellow fever it does not appear to possess any particular advantages over quinine, but, nevertheless, is equally well adapted to fulfill the indications which call for the use of this latter remedy.

That it possesses marked tonic properties, and deserves a prominent place in this classification of the materia medica.

That in chronic dysentery, diarrhœa, dyspepsia, and all diseases of the stomach accompanied with impaired or difficult digestion, its use will be found to be attended with benefit.

Dr. Guier, of Costa Rica, has seen cedron successful in curing the bite of a poisonous serpent, and has used it effectually in cholera morbus, colic, and neuralgia of the face, while in the hands of Dr. Thompson, of London, it has proved efficient in the treatment of gout. M. Heran states that he has employed the remedy in eight cases of poisoning, and that his mode of using it was to administer 5 or 6 grains with a spoonful of brandy, and to dress the bite with the tincture, and that he had rarely occasion to repeat the dose to effect a cure.

In a note on cedron seed from the United States Consulate Livingston, Mr. James Frederick Sarg says: "The cedron is highly prized here, nobody going without a seed, which is used against ague and fever, poisonous snake bite, spasms, etc., and is the most effective cure for toothache that I know of. This seed sells here for twenty-five cents."

Report 6.†—Cedron is a powerful tonic and anti spasmodic. It has long had a great reputation in its native countries as a sure remedy for the bites of venomous serpents, and such appears to be the confidence of the inhabitants of the region in which it flourishes that they have no fears of the poisonous bites of those reptiles if provided with this antidote.

In California and the other Pacific states abound five species of the *Crotalus* or rattle snake family, the bite of which is poisonous. The cedron seed is used by hunters and trappers, and others familiar with its power as an antidote to the poison of this reptile

* Pharm. Jour. and Trans., Feb. 7, 1885. Therapeutic Gazette, 1885, p. 354).
† James G. Steele, of San Francisco, Cal. in New Preparations, 1879, p. 8.

When one is unfortunate enough to have been bitten by a rattlesnake, the bean or seed is scraped or shaved with a knife, and the fragments placed upon the wound and moistened with some spirituous liquor, such as brandy, whisky, etc., and a quantity of the bean swallowed.

Many cases of cure by this means are known, and where the antidotal effects of the cedron are known, the utmost precautions are taken to secure a supply of the "wonderful bean." It seems to act as a remarkable tonic power, itself being an arterial excitant and thus overcoming the alarming sedative effects of the poison of the rattlesnake.

Cedron is also highly esteemed as a remedy for hydrophobia, and cases are known where it proved successful in allaying the spasms of that frightful disease, after all other remedies had failed of effect.

As it imparts its virtues to water and alcohol, concentrated preparations can be made of it, which can be easily kept and transported as well as exhibited with facility to those suffering from disease. It is also used with success in the treatment of intermittent fever, spasms of the stomach and bowels and various obstinate dyspeptic affections.

In 1852, Dr. J. B. Thompson, of London, controlled a case of gout by its use, and Dr. S. S. Purple, of New York, has found it promptly effectual in a number of cases of intermittent fever, and proclaims that it possesses valuable antiperiodic properties.

The dose of the cedron as commonly given is one to two grains for a tonic or antiperiodic, to be repeated three or four times every 24 hours. A Dr. Herman, of South America, states that he has employed the remedy in eight cases of poisoning, and that his mode of using it was to administer five or six grains with a spoonful of brandy, and to dress the bite with the tincture. On the authority of Dr. Purple above quoted, ten to thirty grains can be given every four hours, and in his experience no injurious consequences were observed, other than in some few cases griping or diarrhœa were caused, which effects were easily controlled.